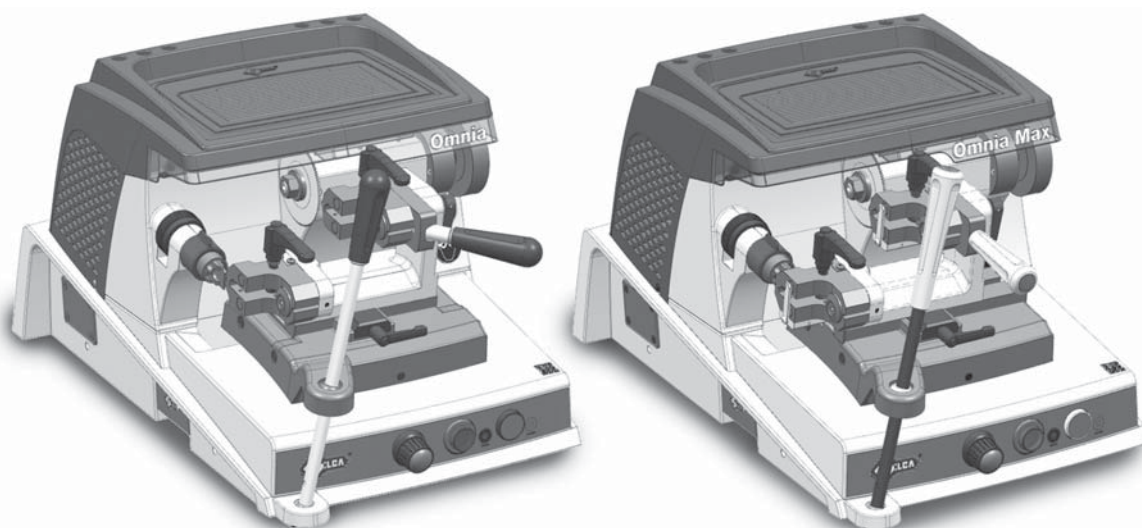




Omnia

Omnia Max

Operating Manual
Original Instructions

D442661XA

vers. 1.0



EN





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The information has been drawn up by the manufacturer in his own language (Italian) to provide users with the necessary indications to use the key-cutting machine independently, economically and safely.

IMPORTANT NOTE: in compliance with current regulations relating to industrial property, we hereby state that the trade-marks or trade names mentioned in our documentation are the exclusive property of authorized manufacturers of locks and users.

Said trade-marks or trade names are nominated only for the purposes of information so that any lock for which our keys are made can be rapidly identified.

INDEX

USE OF THE MANUAL	1
TERMINOLOGY	2
GENERAL WARNINGS.....	4
1 MACHINE DESCRIPTION.....	6
1.1 OMNIA: main working parts	7
1.2 OMNIA MAX: main working parts	8
1.2.1 OMNIA MAX: Clamp carriage for VERTICAL CUTS	9
2 MAIN CHARACTERISTICS.....	10
3 ACCESSORIES PROVIDED	13
4 Technical Data	14
4.1 Electrical diagram	14
5 TRANSPORT	15
5.1 Packing	15
5.2 Pack opening	15
5.3 Unpacking	16
5.4 Removing the stop	18
5.5 Separate parts	18
5.5.1 Power cable	18
5.5.2 Warning label	18
5.5.3 Carriage levers.....	19
5.5.4 OMNIA: standard carriage (bit, double bit and pump keys)	19
5.5.5 OMNIA MAX: carriage for bit, double bit and pump keys.....	20
5.5.6 OMNIA MAX: clamp carriage for vertical cuts	20
5.5.7 OMNIA MAX: solution with a SINGLE CARRIAGE	21
5.6 Removing the clamp carriage	22
6 MACHINE INSTALLATION AND PREPARATION	23
6.1 Checking for damage.....	23
6.2 Environmental conditions.....	23
6.3 Positioning	23
6.4 Description of work station	23
6.5 Connection to the mains	23
7 MACHINE REGULATION AND UTILIZATION	24
7.1 Micrometric tracer point	24
7.2 Tracer point spring	24
7.3 Using the tilting clamp (carriage for bit/double bit and pump keys)	25
7.4 Locking Y axis.....	25
7.5 Checking and calibration.....	26
7.5.1 Axis calibration - carriage for bit, double bit and pump keys.....	26
7.5.2 Axis calibration - clamp carriage for vertical cuts (Omnia MAX)	27
7.5.3 Depth calibration - Carriage for bit, double bit and pump keys	28
8 CUTTING OPERATIONS	30
8.1 Cutting bit and double bit keys.....	31
8.1.1 Cutting short keys	32
8.2 Cutting double female bit keys.....	33
8.3 Cutting keys with centre stop	34

8.4	Cutting bit keys with rear stop (Omnia MAX)	35
8.5	Cutting pump keys	36
8.6	Cutting keys with vertical cuts (Omnia MAX carriage for vertical cuts)	37
9	MAINTENANCE	38
9.1	Replacing the carriage	38
9.2	Replacing the tracer point	38
9.3	Replacing the cutter	39
9.4	Replacing the brush	39
9.5	Replacing the fuses	40
9.6	Accessing the bottom compartment	40
9.7	Replacing the ON/OFF switch	41
9.8	Replacing the motor start button	41
9.9	Replacing the reset switch	42
9.10	Replacing the microswitch	42
9.11	Replacing the brush button	43
9.12	Replacing the plug/socket/filter	44
9.13	Replacing the relay	44
9.14	Replacing the lamp power box	45
9.15	Replacing the motor condenser	45
9.16	Replacing the Plexiglas shield	46
9.17	Replacing the lamp	47
9.18	Replacing and/or tightening the belt	48
9.19	Replacing the motor	49
10	DISPOSING OF MACHINE	51
11	ASSISTANCE	52
11.1	How to request service	52

USE OF THE MANUAL

This manual has been drawn up by the Manufacturer and is an integral part of the machine literature. The manual gives information it is obligatory for the operator to know and which makes it possible to use the machine safely.

User's Manual

This user's manual is provided because it is essential for proper use and maintenance of the machine. The manual must be kept carefully throughout the life of the machine, including the decommissioning stage. Keep in a dry place close to the machine where it is always to hand for the operator.



ATTENTION: IT IS OBLIGATORY to read the manual carefully before using the machine.

Readers' characteristics

This manual must be read and its contents acquired by those who will use it. The OMNIA key-cutting machine is designed for professional use by adults of either gender in full possession of their physical, sensorial or mental capacities.

Manufacturer's ID

OMNIA has an ID plate located on the back of the machine, showing the serial number.

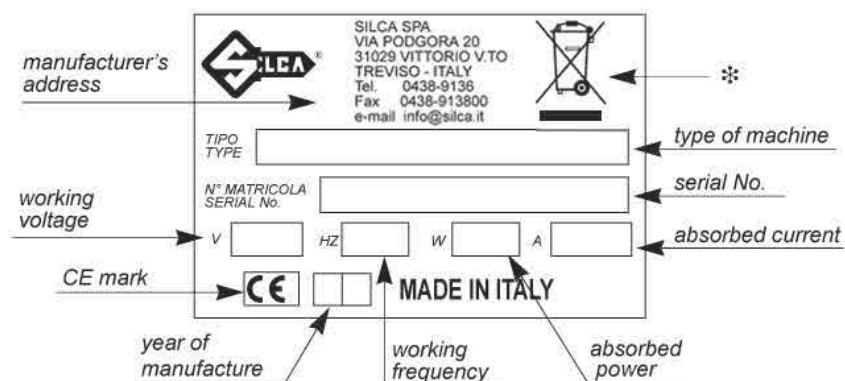


Fig.1

(*) see chap. 10 DISPOSING OF MACHINE.

How to apply for after-sales service

Silca provides purchasers of OMNIA with After-Sales Service.

For the total safety of the operator and machine, any operation not described in the manual must be carried out by the manufacturer or in the special Service Centres recommended by Silca.

At the end of the manual there is a list of manufacturers' and authorized Service Centre addresses.

The warranty card attached to the machine covers free repairs or replacement of faulty parts for 24 months from the date of purchase*.

All operations must be agreed by the user with Silca or the Service Centre.

* Damage caused by negligence or wrong use of the machine by the user will null the warranty.

TERMINOLOGY

For those inexperienced in the subject of keys and key cutting, below is an illustration of the most frequently used terms:

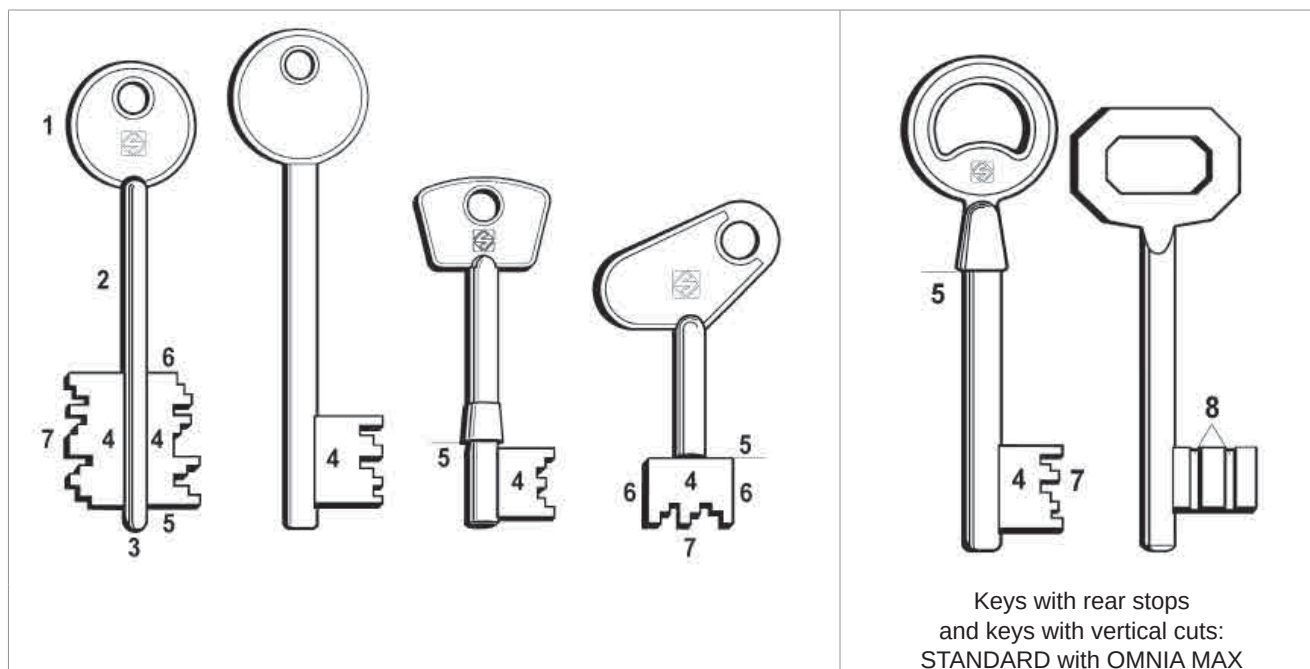


Fig.2

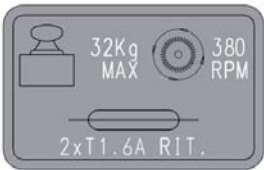
1) Head	3) Tip	5) Stop	7) Cuts
2) Stem	4) Bit	6) Side	8) Vertical cuts

GRAPHICS IN THE USER'S MANUAL

			
Pay attention	Obligation to read the manual	Using ear protection	QR Code *

GRAPHICS ON THE OMNIA and OMNIA MAX KEY-CUTTING MACHINES

				
Obligatory use of safety goggles	Obligation to read the manual	Motor start push button symbol	Brush button symbol	QR Code *

	
Adhesive label Mass - RPM - Fusibles	Adhesive label DANGEROUS MOBILE PARTS (provided - chap.3)

(*) A QR code is a two dimensional bar code used to memorize information to be read by means of a mobile phone or smart phone. Read the QR code on the machine to connect to useful and constantly updated information relating to key-cutting machine maintenance, useful tips for your OMNIA/OMNIA MAX key-cutting machine and see the continuously evolving range of optional accessories.



GENERAL WARNINGS

OMNIA is designed to the principles of European Standards (CE).

Right from the design stage solutions have been adopted to eliminate hazards for the operator in all the stages of use: handling, regulation, use and maintenance.

The materials used in manufacture and the components employed in using OMNIA are not dangerous and ensure that the machine complies to current standards.

Silca S.p.A. has also experimented and applied numerous technical solutions that allow the key-cutting machine to optimize the quality of the cut keys.

To guarantee maintaining these results over time, please follow the instructions below:

- **Observe the procedures described in this manual;**
- **Always use Original Silca Tools as they are designed to make the best of OMNIA and provide quality key-cutting;**
- **Use Silca key blanks, made with top quality materials;**
- **Have the key-cutting machine checked periodically by an authorized Silca After-Sales Service Centre (list at the end of this manual);**
- **Always use Silca Original Spare Parts. Beware of imitations!**



ATTENTION: in the event of prolonged use, cutting extra thick bits or keys in hard materials (iron, steel) we recommend using individual ear protection devices.



NORMAL USE

OMNIA is a key-cutting machine (see chap.1) and must be installed and used according to the rules and specifications established by the manufacturer.

The OMNIA key-cutting machine is designed for use on business or industrial premises (e.g. hardware shops, key cutting centres, etc...).

Any other use different from that indicated in this manual will cause the forfeiture of all customers' rights to make claims on Silca S.p.A. and may be an unknown source of hazard for the operator or third parties.



ATTENTION: Negligent use or failure by the operator to observe the instructions in this manual are not covered by the warranty and the manufacturer declines any responsibility in such cases.

SAFETY

The key-cutting machine is built entirely to standards. The operations for which it has been designed are easily carried out at no risk to the operator.

The adoption of general safety precautions (wearing protective goggles) and observation of the instructions provided by the manufacturer in this manual eliminate all human error, unless deliberate.

The key-cutting machine is designed with features which make it completely safe in all its parts.

• CUTTER MOTOR PROTECTION



ATTENTION: the cutter motor is protected from overheating by a device (inside the motor) that stops it when it reaches a dangerous temperature.

This condition can occur when the machine motor is left on continuously (protection will cut in after approximately 40 minutes), with high ambient temperatures or in severe working conditions (considering an average work cycle - duty cycle 85% - protection will cut in after approximately 1 hr 40 minutes). If the cutter motor overheats it cuts out automatically. In such cases proceed as follows:

- a) turn off the master switch (A).
- b) let the motor cool for at least 2 hours then use the machine normally.

- **MOTOR START PUSH BUTTON**

The machine is protected from untimely machine start. When the carriage is all the way back towards the operator a safety microswitch turns off the motor. If the carriage is inadvertently moved towards the cutter the motor does not start.

To start the motor (with the machine on) move the carriage slightly towards the cutter and press the motor start button (B).

RESIDUAL RISKS

No further risks will arise when properly using the OMNIA and OMNIA MAX machines.

SAFETY REGULATIONS

- Always disconnect the machine when it is not in use or when performing maintenance operations.
- Check the electrical wiring periodically; replace any wires that show signs of wear.
- Always work with dry hands free of grease or oil.
- Never tug on the electricity supply lead and make sure it is not in contact with oil or other liquids, sharp objects or heat. Never remove the earthing pin from the plug. Check that the earthing wire is connected properly.
- Do not use the machine in dangerous environments (wet or damp).
- All visitors, especially children, must stay at a safe distance from the machine and must never come into contact with the electric wiring.
- Place the adhesive label provided “DANGEROUS MOBILE PARTS” as shown in chap.5.5.2.

1 MACHINE DESCRIPTION

OMNIA is a professional key-cutting machine for bit, male and female* double bit, and pump keys.

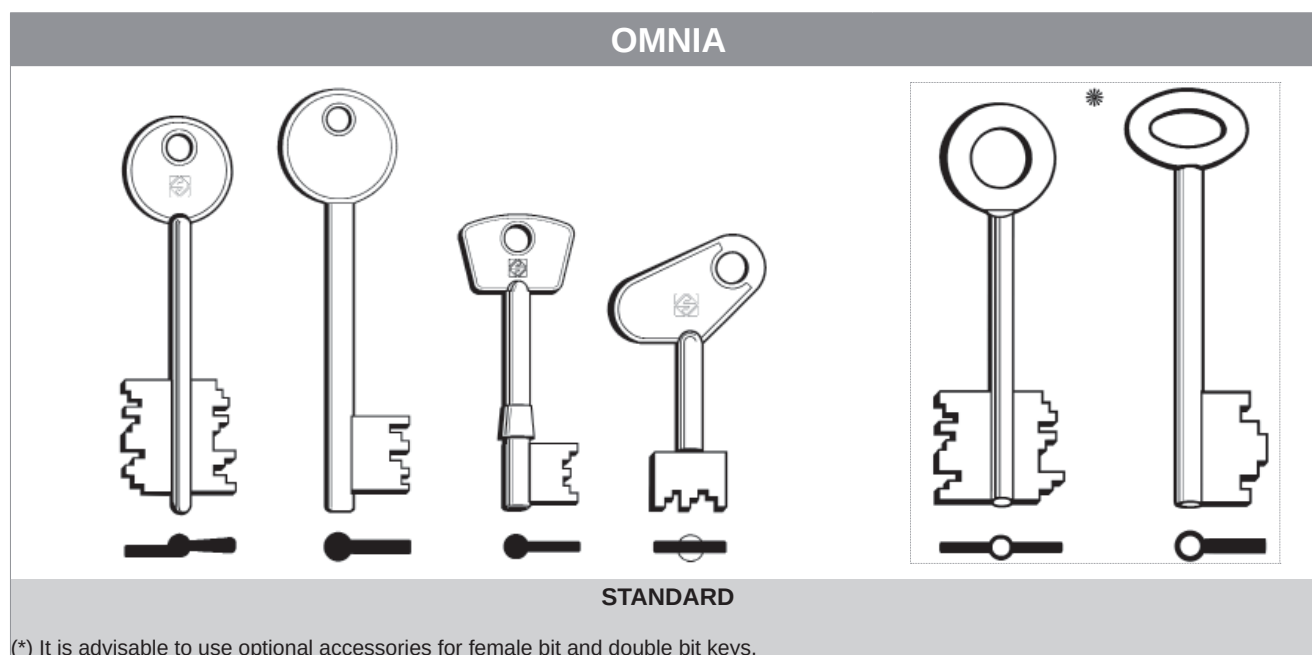


Fig.3

OMNIA MAX is a professional key-cutting machine for bit, male and female* double bit keys and pump keys with vertical cuts.

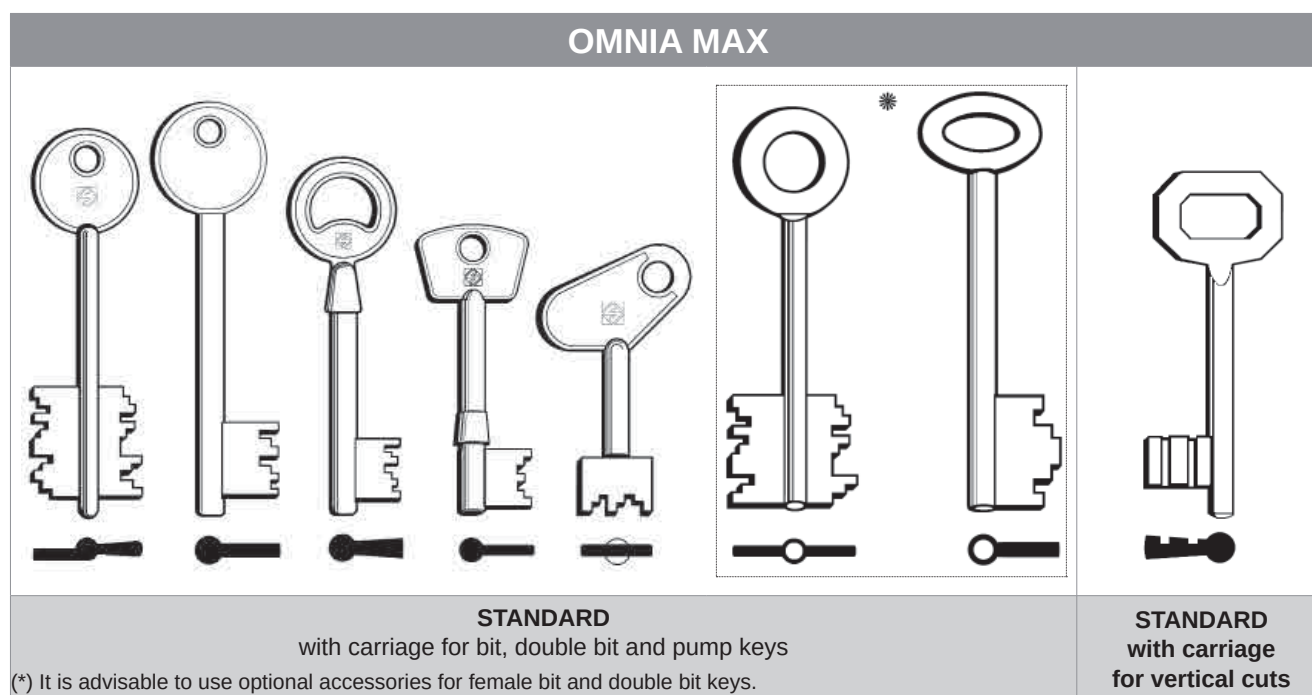


Fig.4

1.1 OMNIA: main working parts

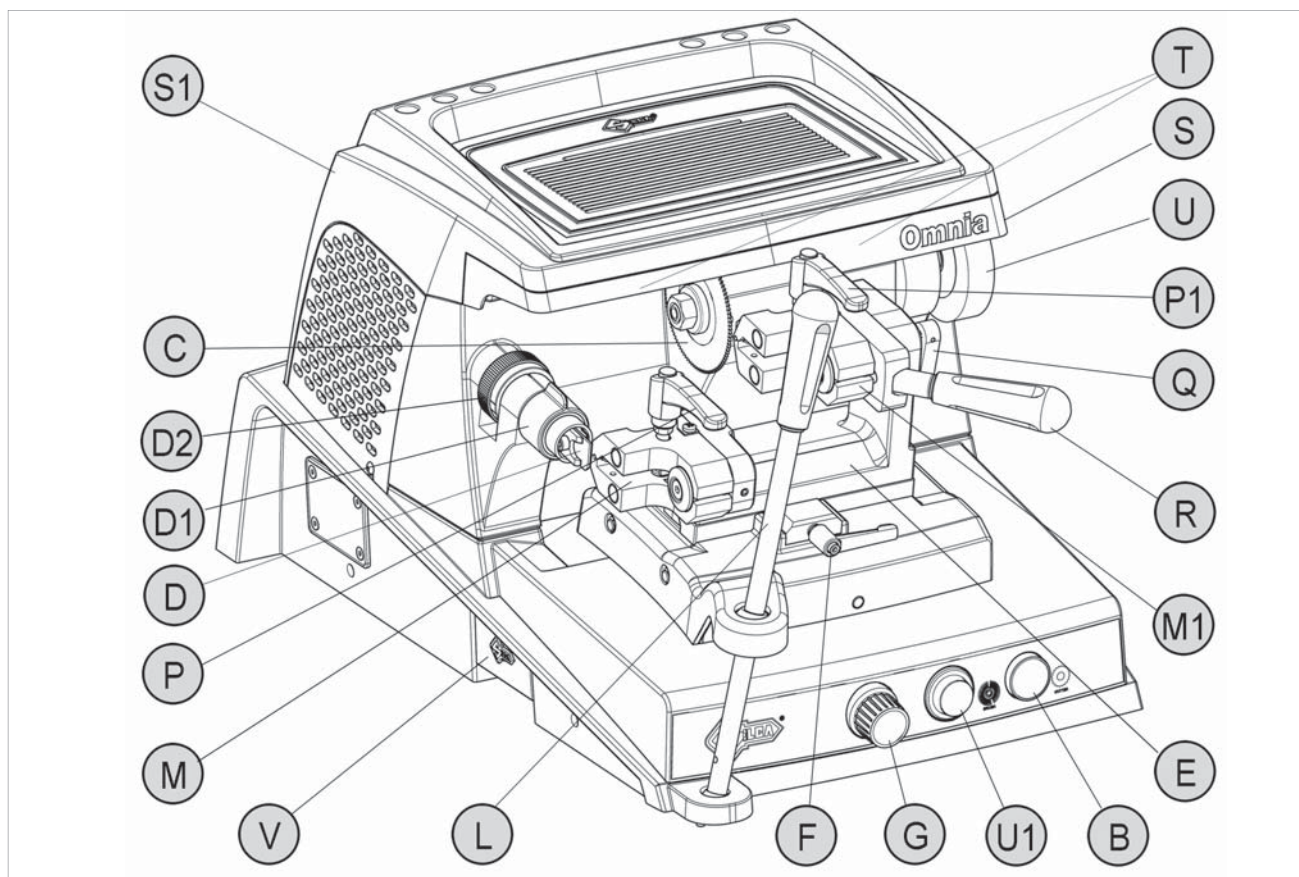


Fig.5

- A - ON/OFF switch
- A1 - power supply socket with fuses
- B - motor start button
- C - cutter
- D - tracer point
- D1 - tracer point spring cam
- D2 - micrometric ring nut for tracer point regulation
- E - clamp carriage
- F - clamp carriage locking handle
- G - Y axis locking knob
- H - motor
- L - translation lever
- M - fixed clamp for bit, double bit and pump keys
- M1- mobile clamp for bit, double bit and pump keys
- P - fixed clamp tightening handle
- P1 - mobile clamp tightening handle
- Q - mobile clamp locking lever
- R - mobile clamp rotation lever
- S - plexiglas safety shield
- S1 - cover
- T - lamps
- U - brush
- U1 - brush push button
- V - swarf tray

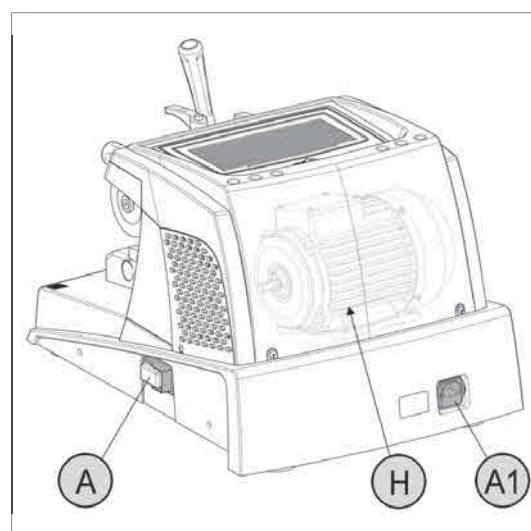


Fig.6

1.2 OMNIA MAX: main working parts

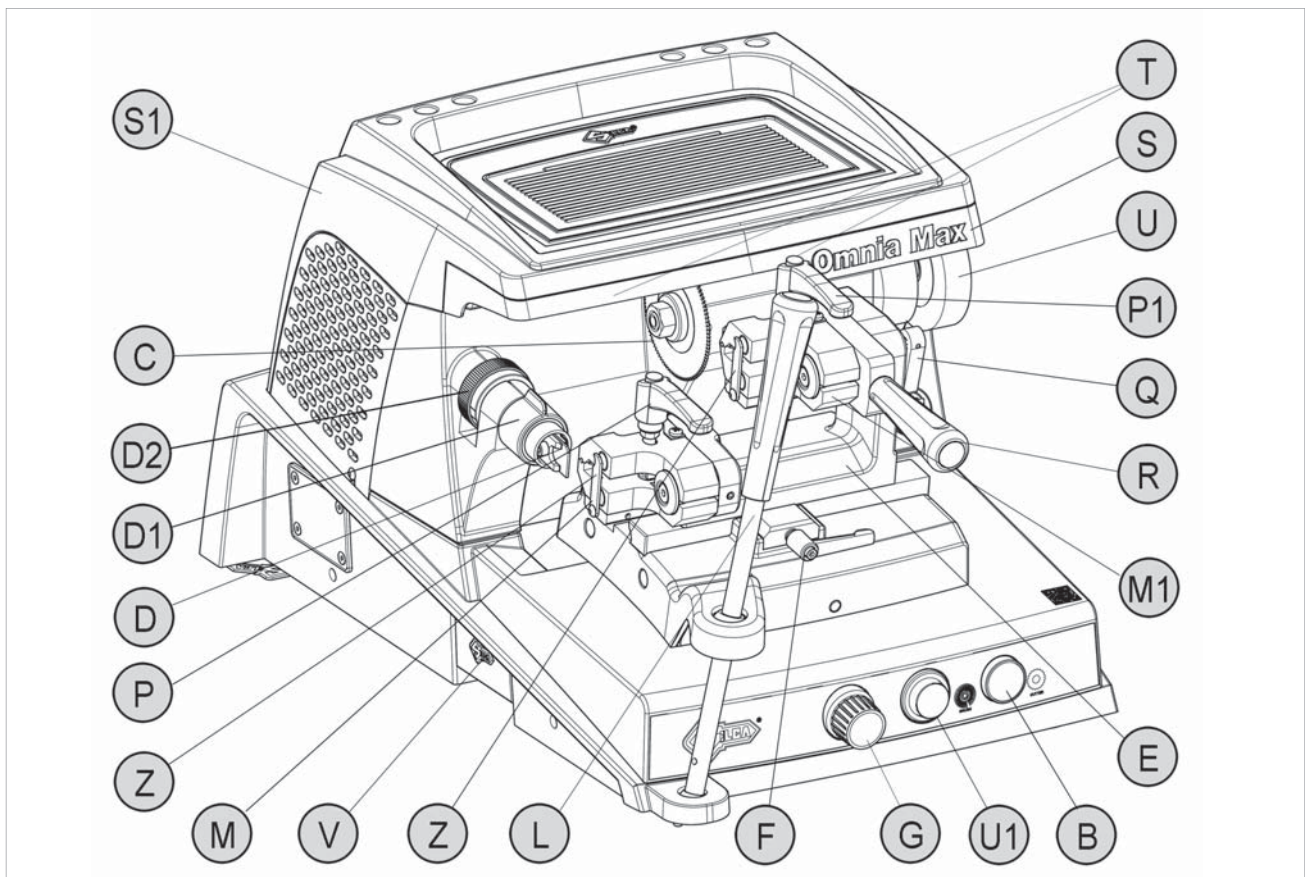


Fig. 7

- A - ON/OFF switch
- A1 - power supply socket with fuses
- B - motor start button
- C - cutter
- D - tracer point
- D1 - tracer point spring cam
- D2 - micrometric ring nut for tracer point regulation
- E - clamp carriage
- F - clamp carriage locking handle
- G - Y axis locking knob
- H - motor
- L - translation lever
- M - fixed clamp for bit, double bit and pump keys
- M1 - mobile clamp for bit, double bit and pump keys
- P - fixed clamp tightening handle
- P1 - mobile clamp tightening handle
- Q - mobile clamp locking lever
- R - mobile clamp rotation lever
- S - Plexiglas safety shield
- S1 - cover
- T - lamps
- U - brush
- U1 - brush push button
- V - swarf tray
- Z - pin/gauge for keys with rear stop

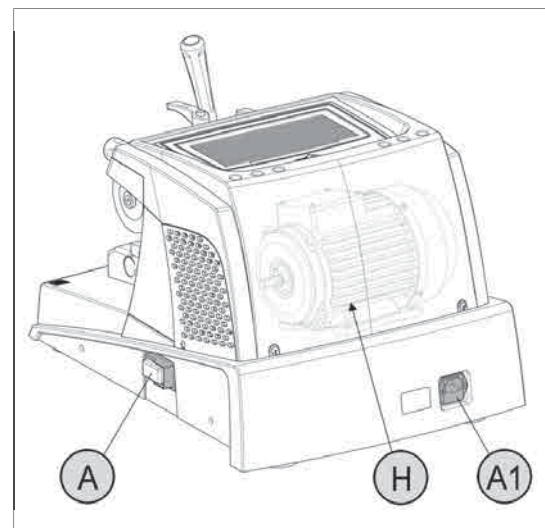


Fig. 8

1.2.1 OMNIA MAX: Clamp carriage for VERTICAL CUTS

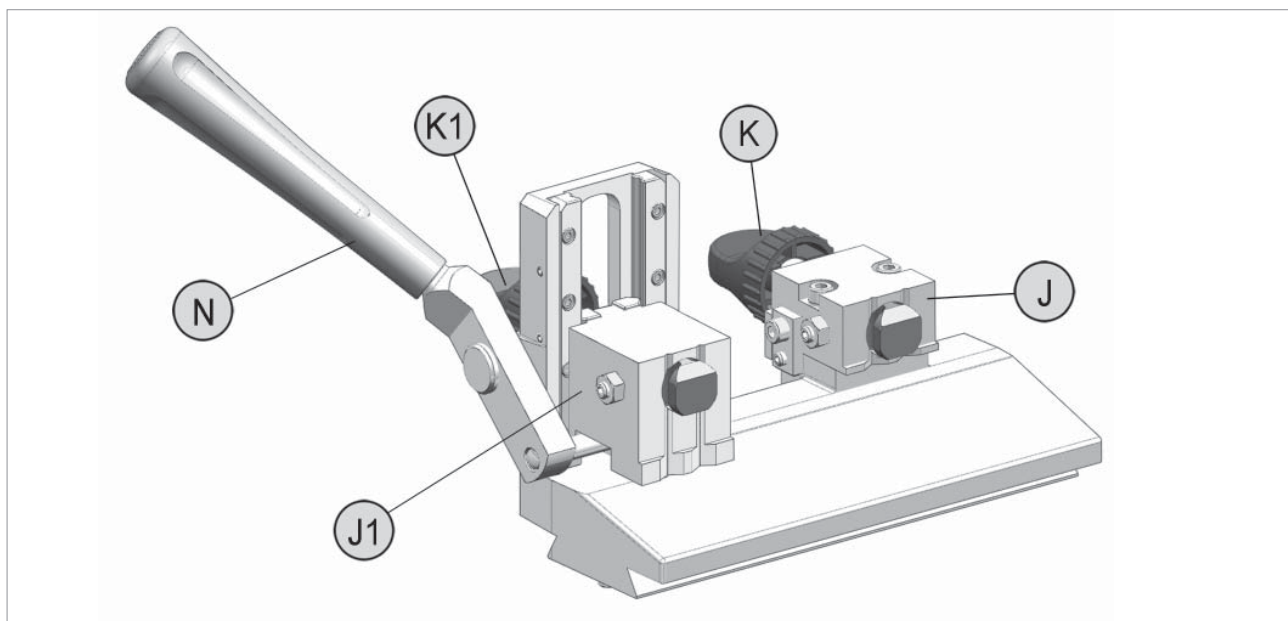


Fig.9

- J - fixed clamp for vertical cuts
- J1 - mobile clamp for vertical cuts
- K - fixed clamp knob
- K1 - mobile clamp knob
- N - mobile clamp lever

2 MAIN CHARACTERISTICS

- **ON/OFF SWITCH**

The key-cutting machine is connected to a power supply socket with a differential switch; when the machine is turned on with the switch (A) located on the right-hand side, the lamps (T) illuminate to indicate that the machine is live.



ATTENTION: switch (A) is electromagnetic and if there is a power failure it goes off automatically. When power returns it must be reset manually to supply the machine with electricity.

- **MOTOR START BUTTON**

The push button (B) for starting the motor is located on the front of the machine.

To start the motor (with the machine on) move the carriage slightly towards the cutter and press the motor start button (B).

The machine is protected from untimely machine start. When the carriage is all the way back towards the operator a safety microswitch turns off the motor. If the carriage is inadvertently moved towards the cutter the motor does not start.

- **BRUSH PUSH BUTTON**

The push button (U1) for activating the brush is located on the front of the machine.

- **BRUSH**

The brush (U) is in accident-proof material and its purpose is to eliminate the burrs from the key after cutting. Press push button (U1) to activate the brush.

- **Y AXIS LOCKING KNOB**

The Y axis locking knob (G) is located on the front of the machine (see chap.7.4).

- **MACHINE CARRIAGE MOVEMENT LEVER**

The lever (L) has an ergonomic grip and moves on ball joints that allow smooth movement of the carriage, which has ball bearing guides.

- **ILLUMINATION**

The work area is perfectly illuminated by two fixed lamps (LED) (T) turned on by the master switch.

- **MICROMETRIC TRACER POINT (SPRUNG)**

The tracer point (D) used for reading the cuts on keys to be copied is located on the left-hand side of the machine. Depth is easily adjusted by means of the micrometric ring nut (D2) (chap.7.1).

The sprung function is activated/deactivated by turning the special cam (D1) (chap.7.2).

- **CUTTER**

The cutter (C) used for cutting key blanks is in TiN coated Super Rapid steel and protected by a safety shield (S).

- **SWarf TRAY**

The tray (V) located on the left is easily removable so that all the swarf can be cleared away.

- **MOTOR AND TRANSMISSION UNIT**

The motor has belt transmission. The transmission shaft that moves the cutter (C) and brush (U) is located on the right of the motor.

- **CLAMP HANDLES AND KNOBS**

Anatomical handles and knobs ensure perfect easy hold on the keys in the clamps even with just light pressure when closing them.

- **CLAMP CARRIAGES**

OMNIA

Clamps for bit/double bit and pump keys

The clamps (M) (M1) comprise two self-centring jaws which ensure perfect hold on the shafts of bit/double bit and pump keys (Fig.3).

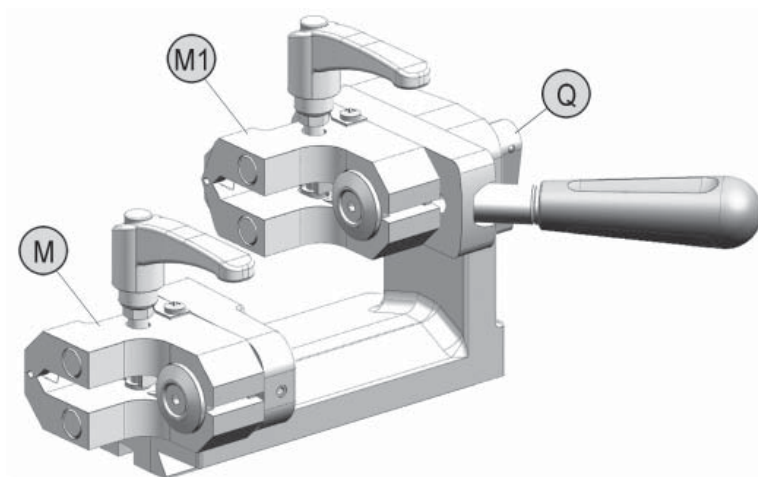


Fig.10

The carriage is found in the machine packing as a separate item (see chap.5.2 and chap.5.5).

OMNIA MAX

Clamps for bit/double bit and pump keys

The clamps (M) (M1) comprise two self-centring jaws which ensure perfect hold on the shafts of bit/double bit and pump keys (Fig.4).

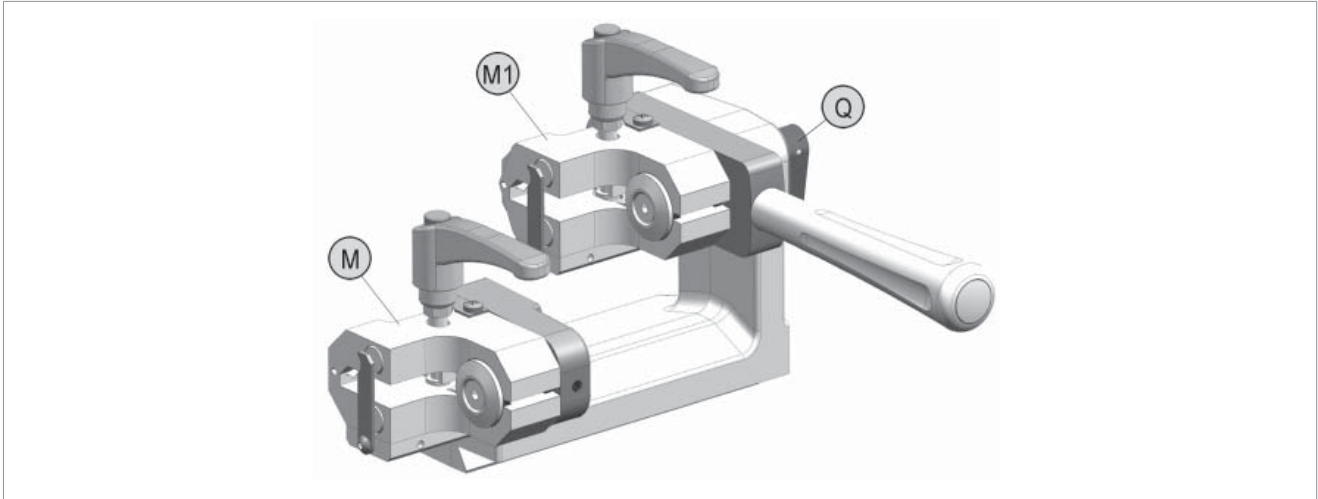


Fig.11

The carriage is found in the machine packing as a separate item (see chap.5.2 and chap.5.5).

NOTE: the Omnia MAX carriage for double bit keys can be used alone or connected to the Omnia MAX carriage for vertical cuts (see chap.5.5.7 OMNIA MAX: solution with a SINGLE CARRIAGE).

Clamps for vertical cuts (Omnia MAX only)

The clamps (J) (J1) are designed to ensure perfect hold on the shafts of bit keys with vertical cuts.

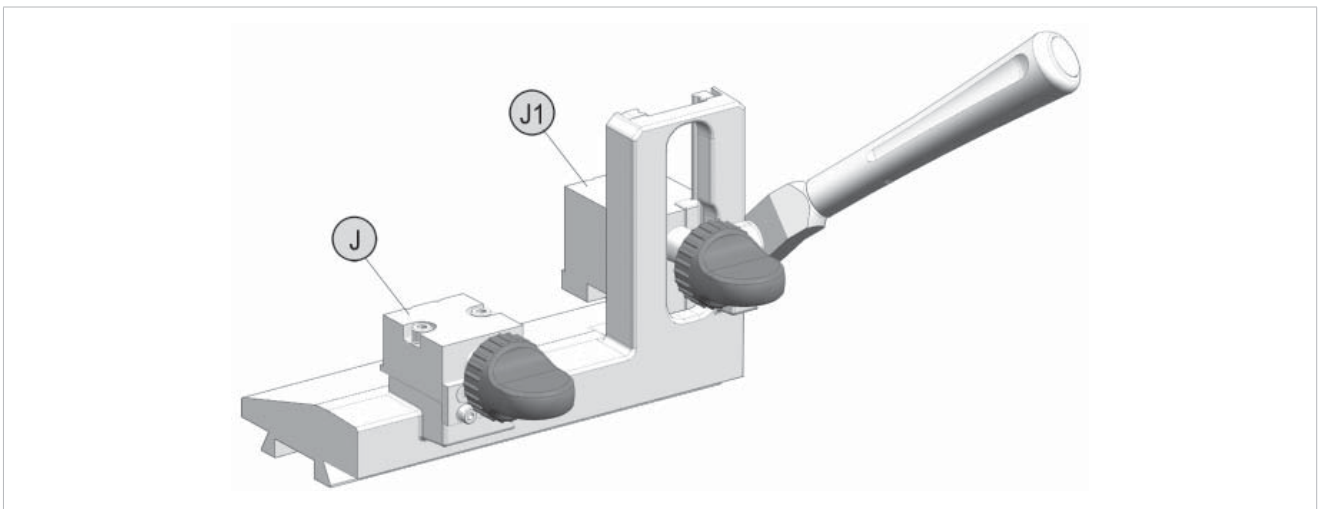


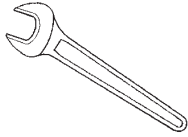
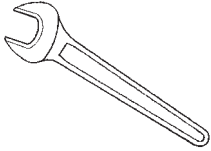
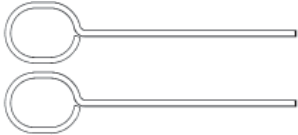
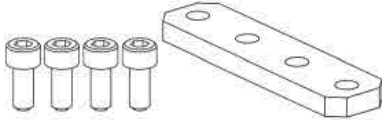
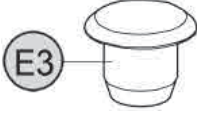
Fig.12

The carriage is found in the machine packing as a separate item (see chap.5.2 and chap.5.5).

NOTE: the Omnia MAX carriage for vertical cuts can be used alone or connected to the Omnia MAX carriage for bit keys (see chap.5.5.7 OMNIA MAX: solution with a SINGLE CARRIAGE).

3 ACCESSORIES PROVIDED

OMNIA comes with a set of accessories for its operation and maintenance (tools, hex wrenches, fuses) supplied in a special tool kit comprising:

allen key 2 mm 	spanner 13 mm 
allen key 2,5 mm 	spanner 19 mm 
allen key 3 mm 	cutter release rod 
allen key 4 mm 	fuses 1,6 Amp delayed (230V) 
allen key 5 mm 	setting pins 
allen key 6 mm 	stop pins for FIAM keys 
adhesive label "DANGEROUS MOBILE PARTS" (chap.5.5.2) 	connection plate+screws for the carriages (chap.5.5.7) (Omnia MAX only) 
carriage stopper (chap.5.4) 	

4 TECHNICAL DATA

Electricity supply:	230V - 50Hz
Maximum absorbed power:	230V: 1 Amp. 235 Watt
Cutter motor:	single phase and speed
Movements:	by ball guides (carriage) and ball socket joint (lever)
Cutter:	80 x 1,5 x 22 in TiN coated Super Rapid steel
Tool speed:	386 rpm
Runs carriages:	53 mm X axis - 42 mm Y axis (50 mm Z axis for vertical cuts carriage only)
Dimensions:	width: 395 mm - depth: 550 mm - height: 320 mm
Mass:	Kg. 32 Omnia - Kg.33,5 Omnia MAX with 2 carriages
Noise level:	sound pressure Lp(A) = brass 83,7 dB(A) - iron 91,7 dB(A) sound power Lw(A) = iron keys 92,1 dB(A)

4.1 Electrical diagram

The main parts of the electrical circuit on the OMNIA key-cutting machine are listed below:

- 1) Power socket with fuses
- 2) ON/OFF switch
- 3) Lamp power
- 4) LED lamps
- 5) Carriage microswitch
- 6) Brush push button
- 7) Electromagnetic switch (reset)
- 8) 12.5 mF condenser
- 9) 230V-50Hz motor
- 10) Relay

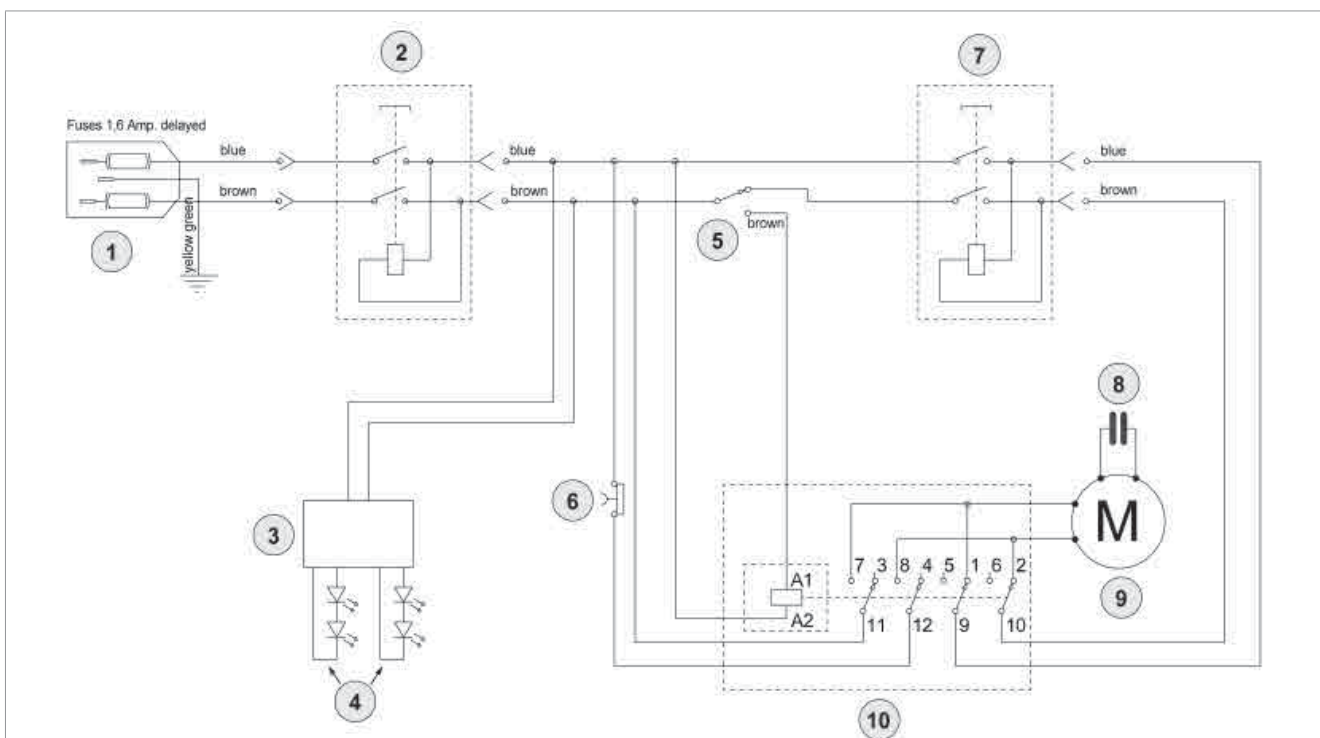


Fig.13

5 TRANSPORT

The key-cutting machine transports easily and there are no particular hazards involved in handling it. The packed machine must be carried manually by 2 (or more) people or with a transpallet truck.

5.1 Packing

- The packing used for the OMNIA machines guarantees protection for the machine and all its parts during transport.
- The packing comprises a pallet base (b), to which the machine is fixed, and a cardboard cover (a).
- The machine is fixed to the base with screwed brackets that stop it from moving during transport.
- Once the packing case is closed it is taped with two straps which secure the cardboard cover to the pallet.
- Warnings to observe during transport are shown by symbols on the outside of the cardboard cover.

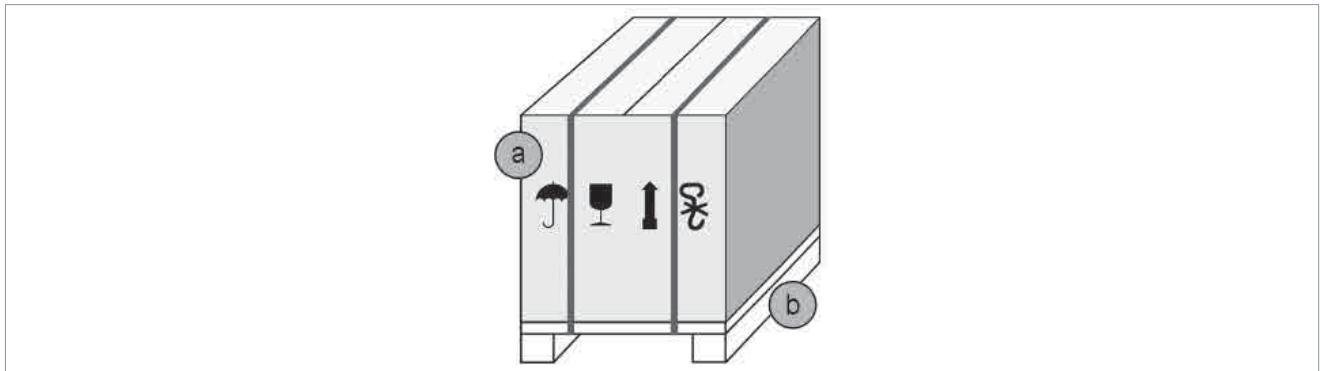


Fig.14



Keep dry



Handle with care



This side up



Use no hooks

To avoid knocks which could damage the machine, it is advisable to use the original packing and fix the machine with the special brackets every time it is transported.

5.2 Pack opening

- 1) Cut the straps with scissors and remove.
- 2) Raise the cardboard.
- 3) Check the contents of the box, which should comprise:

OMNIA
1 Omnia key-cutting machine
1 set of documents, including: operating manual, quick guide, spare parts list and guarantee
1 power cable
1 tool set
1 Omnia standard carriage
1 lever

OMNIA MAX
1 Omnia MAX key-cutting machine
1 set of documents, including: operating manual, quick guide, spare parts list and guarantee
1 power cable
1 tool set
1 Omnia MAX carriage for bit/double bit keys
1 Omnia MAX vertical cuts carriage
2 levers

NOTE: the complete packing (cardboard, pallet, brackets and screws) should be kept for use whenever the machine is moved.

5.3 Unpacking

- 1) Follow the instructions illustrated to remove the carriage fixing brackets and the carriage from the pallet (2 carriages on Omnia MAX):

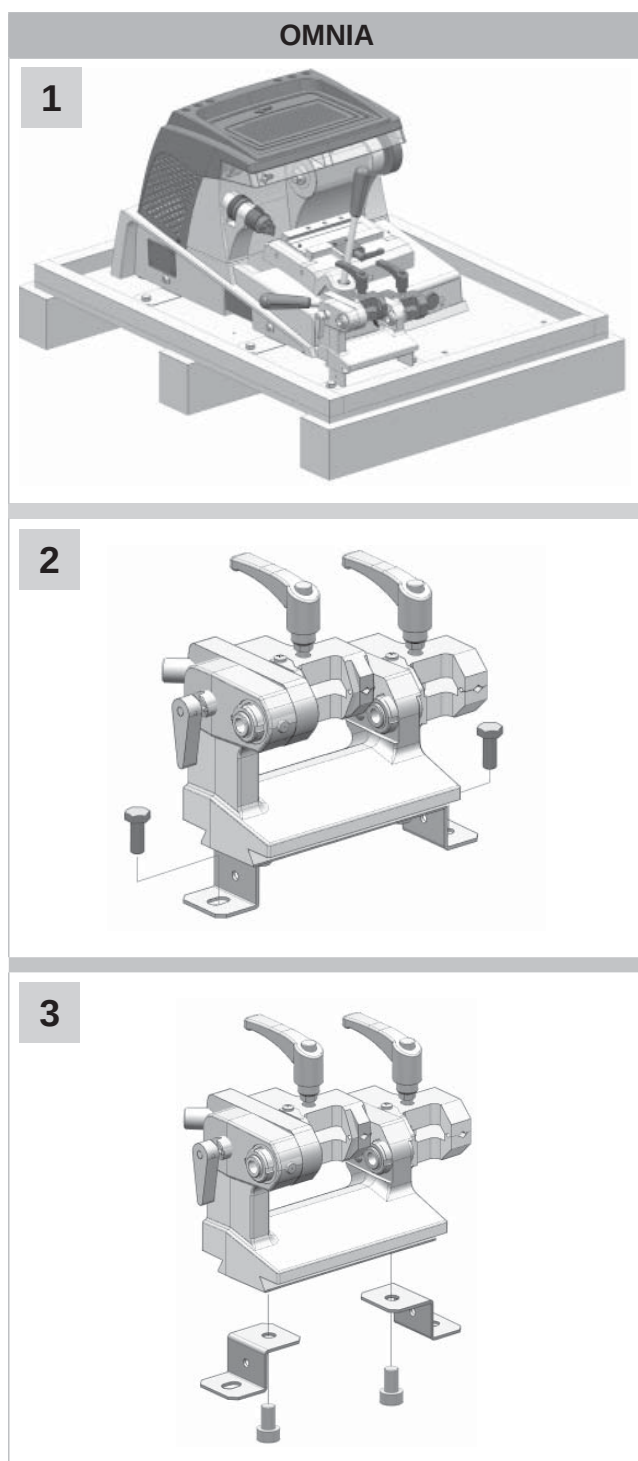


Fig.15

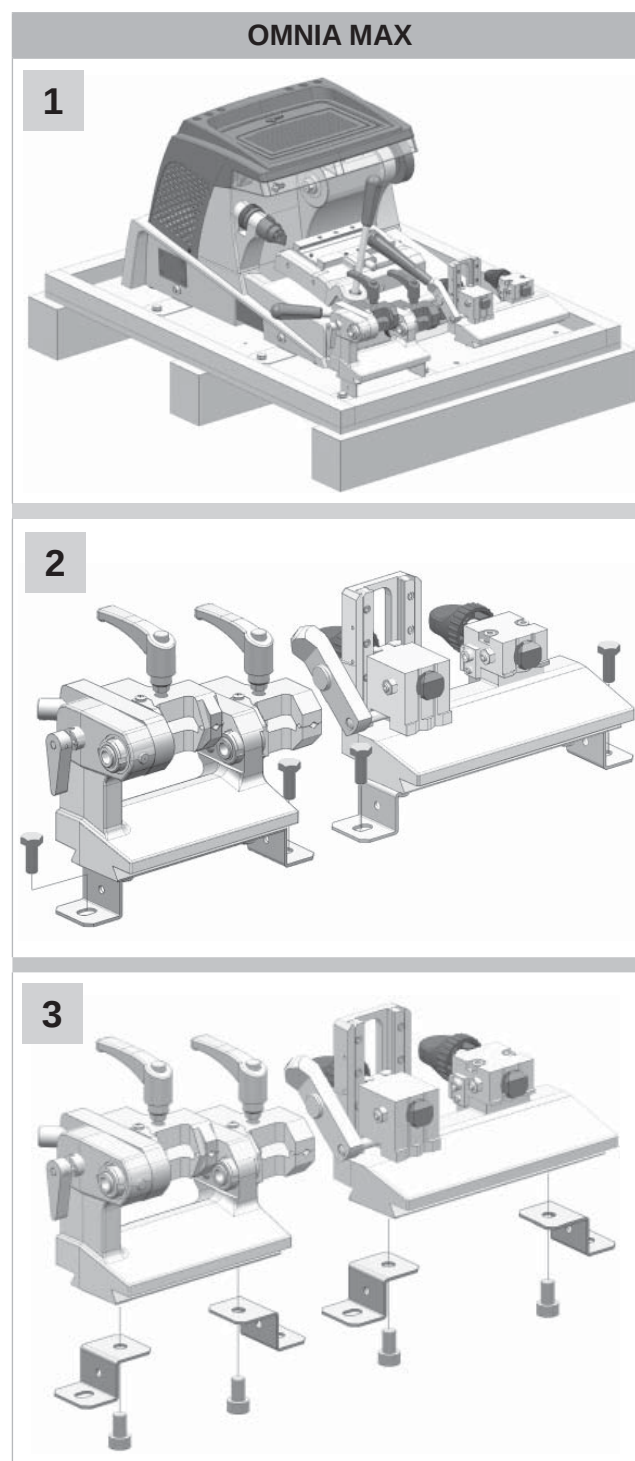


Fig.16

2) Remove the key-cutting machine from the pallet:

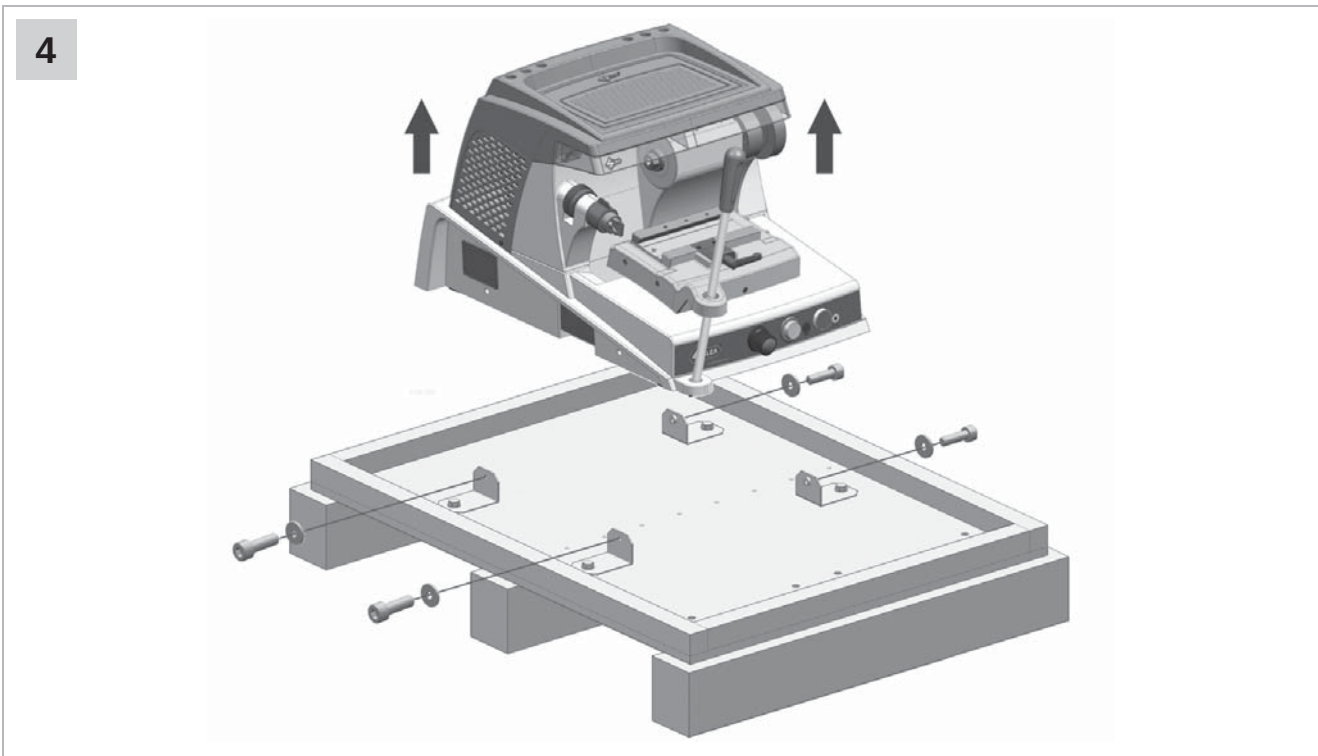


Fig.17

NOTE: the complete packing (cardboard, pallet, brackets and screws) should be kept for use whenever the machine is moved.



ATTENTION: lift the machine by gripping the external rib on the base (Fig.18). Never lift it by holding the clamps, levers or other parts.

When the key-cutting machine has been removed from its packing, place it directly on a worktop; this should be done by at least 2 persons.

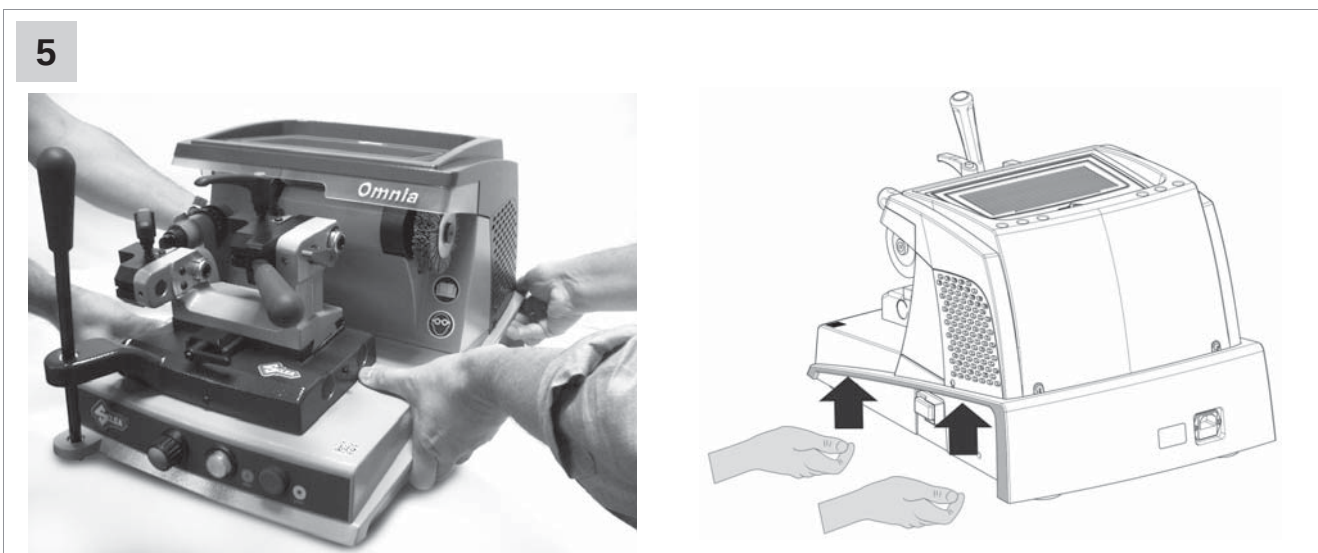


Fig.18

5.4 Removing the stop

- 1) Loosen and remove the screw (E1).
- 2) Insert the stopper (E3) provided - chap.3) into the hole on the carriage.

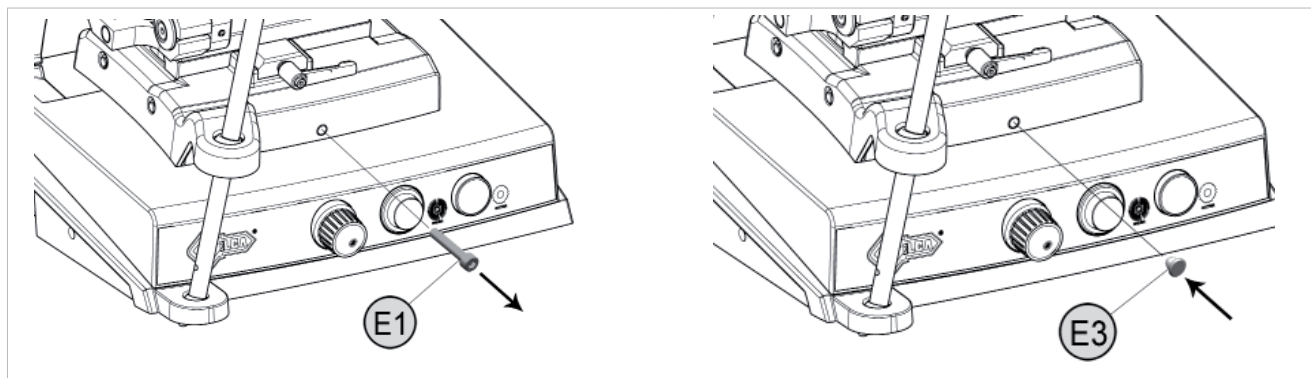


Fig.19

5.5 Separate parts

The parts separate from the machine and separately packed must be installed by the operator as follows:

5.5.1 Power cable

Connect power cable to the key-cutting machine (Fig.20).

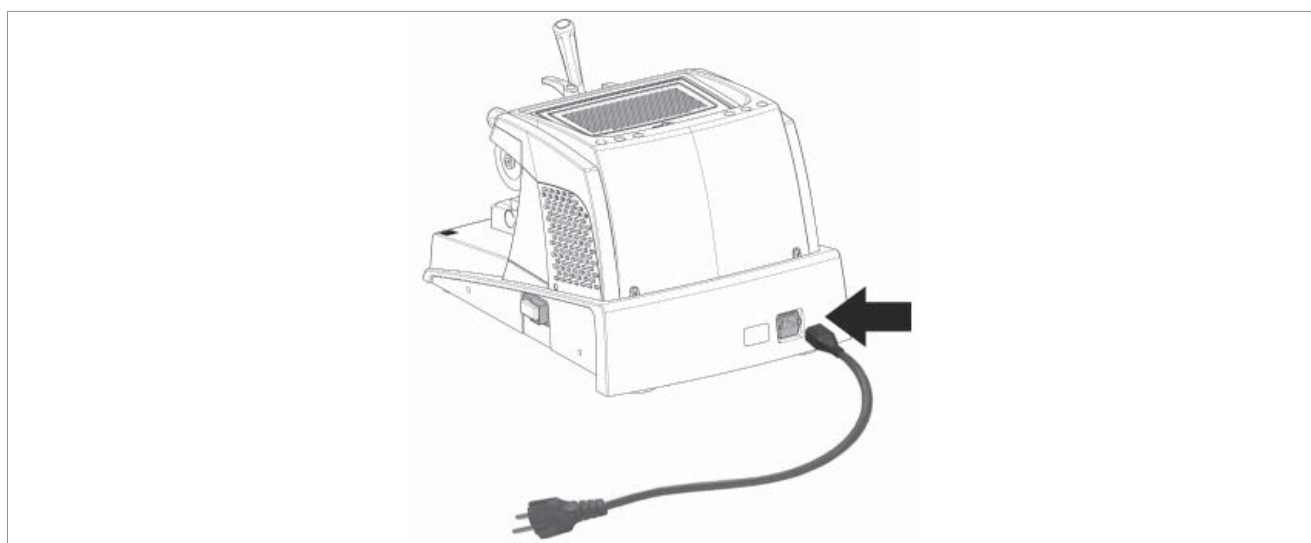


Fig.20

5.5.2 Warning label

Place the adhesive label in the appropriate language in position as shown in Fig.21.

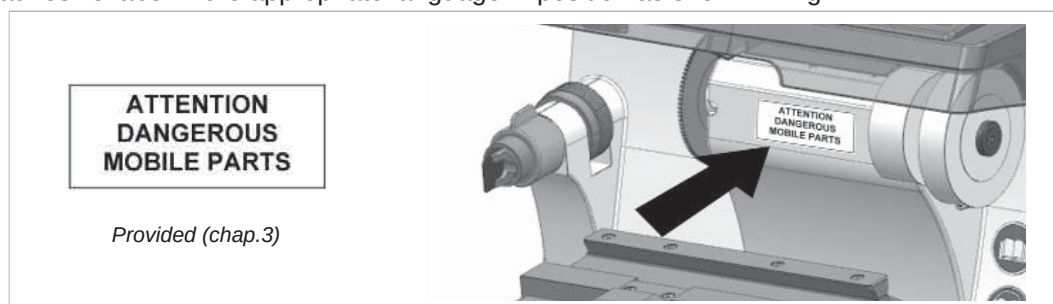


Fig.21

5.5.3 Carriage levers

Screw the levers indicated in Fig.22 and Fig.23 all the way in.

OMNIA

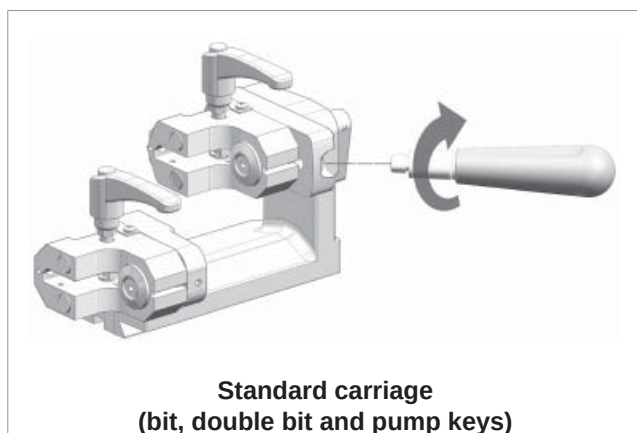


Fig.22

OMNIA MAX

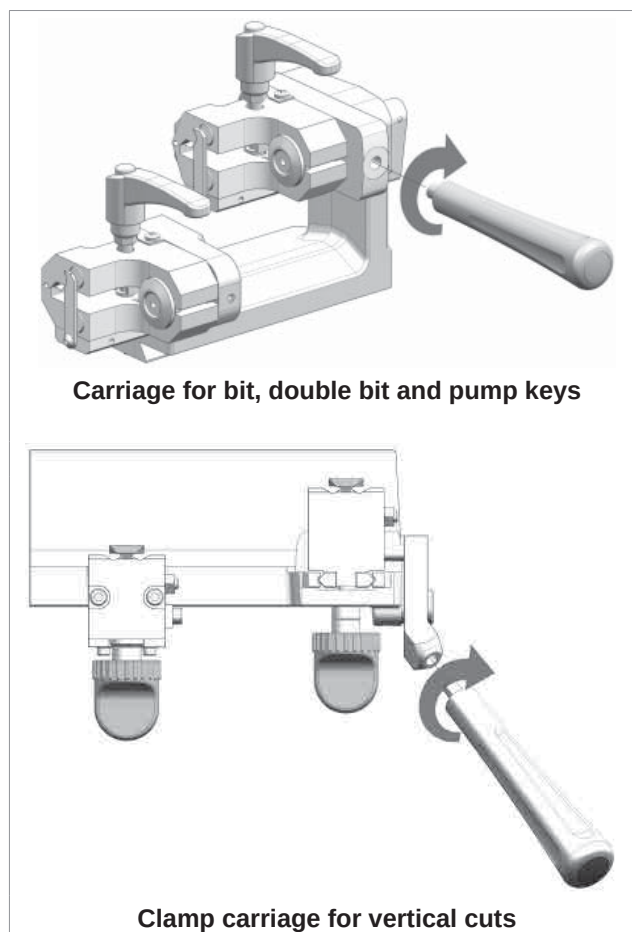


Fig.23

5.5.4 OMNIA: standard carriage (bit, double bit and pump keys)

- 1) Insert the carriage from right to left in the special groove and take to the end of its .
- 2) Lock the carriage with the handle (F).

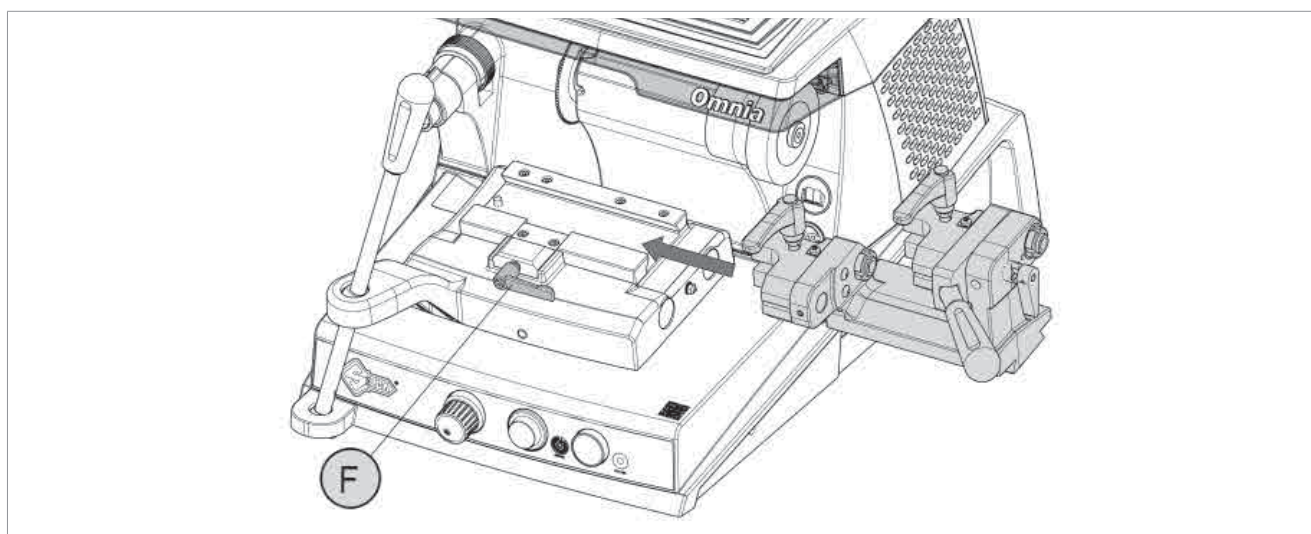


Fig.24

5.5.5 OMNIA MAX: carriage for bit, double bit and pump keys

- 1) Insert the carriage from left to right in the special groove and take to the end of its run.
- 2) Lock the carriage with the handle (F).

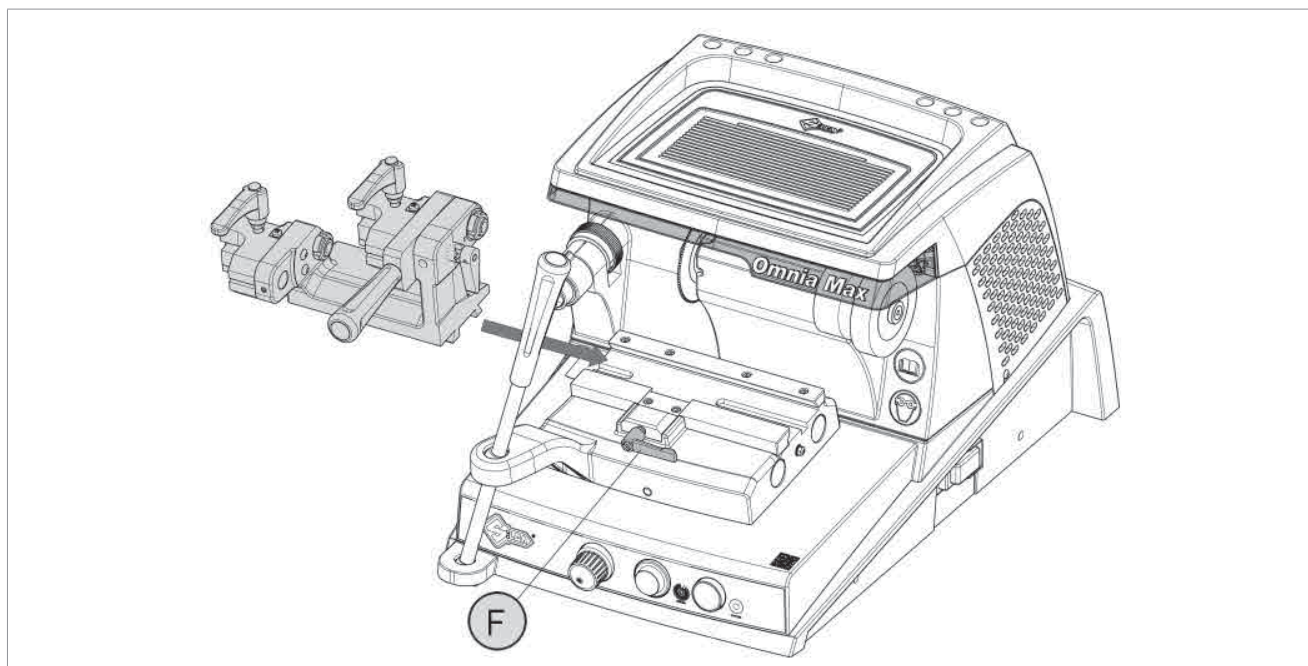


Fig.25

5.5.6 OMNIA MAX: clamp carriage for vertical cuts

- 1) Insert the carriage from right to left in the special groove and take to the end of its run.
- 2) Lock the carriage with the handle (F).

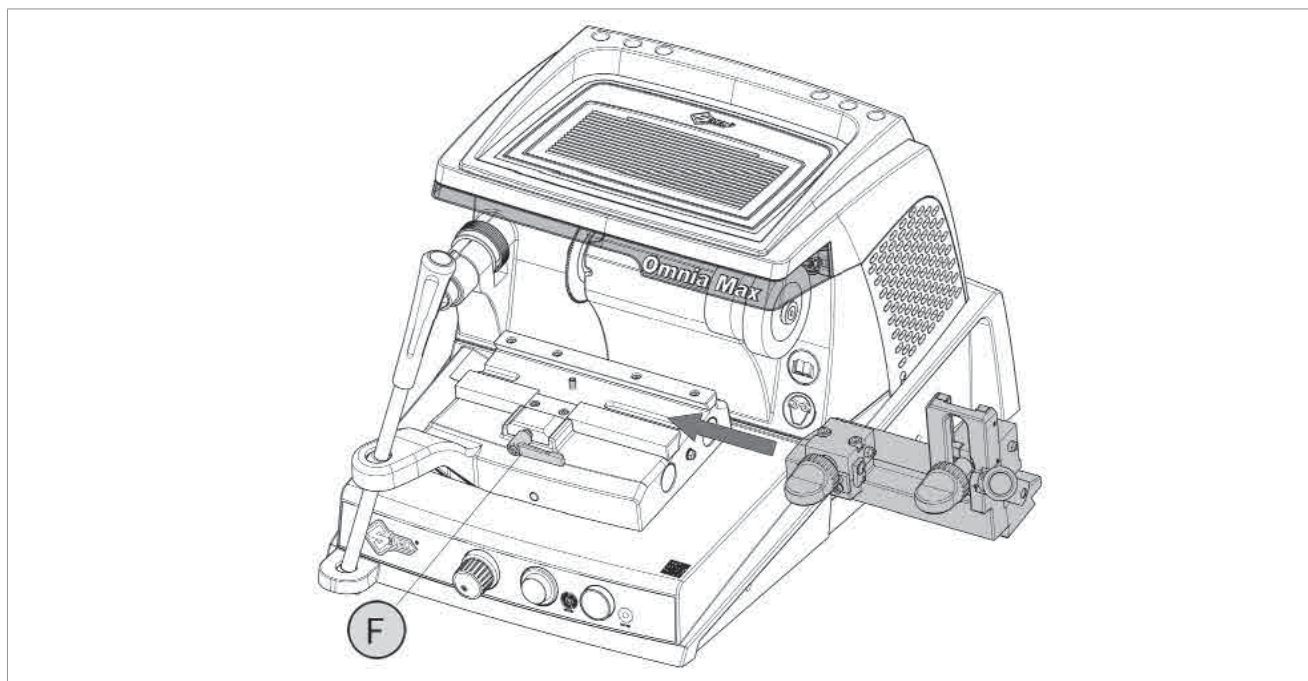
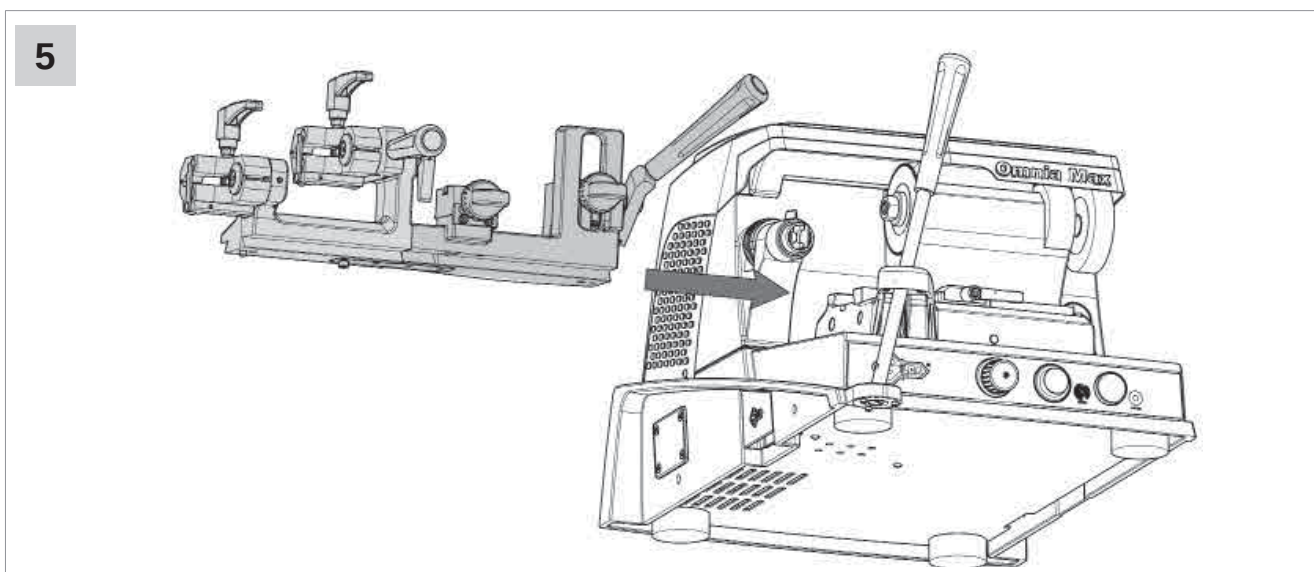
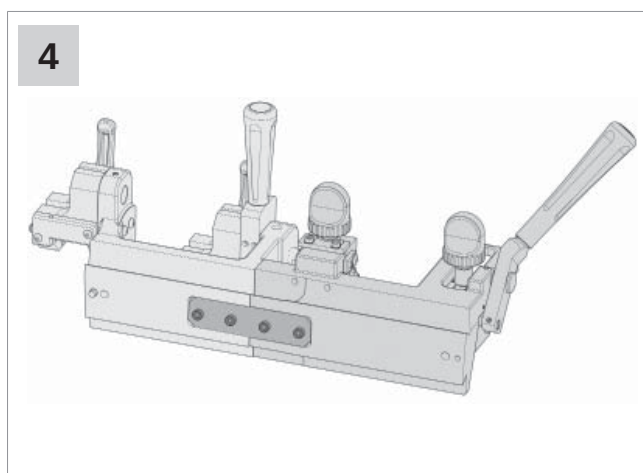
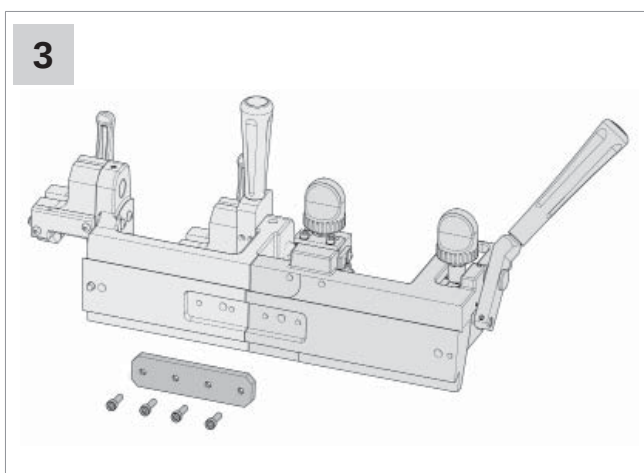
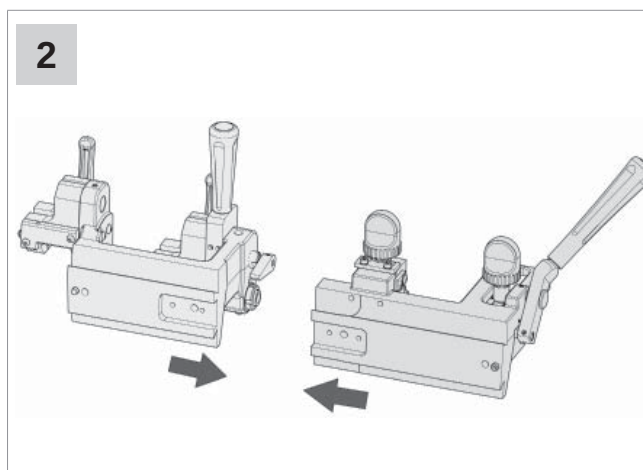
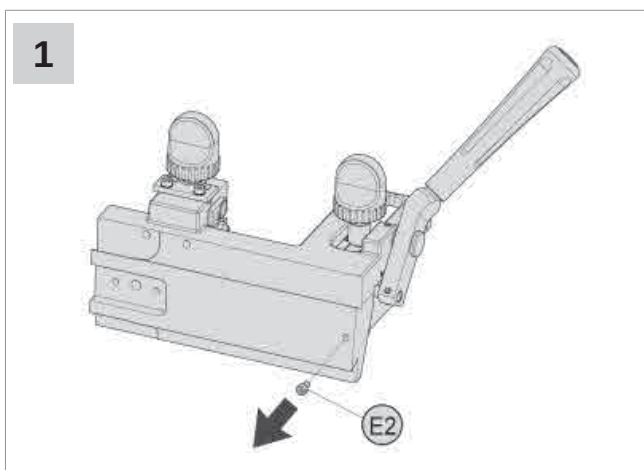


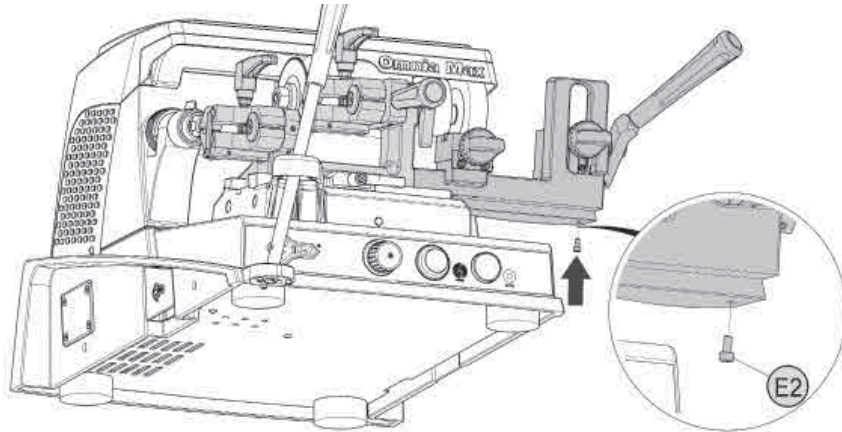
Fig.26

5.5.7 OMNIA MAX: solution with a SINGLE CARRIAGE

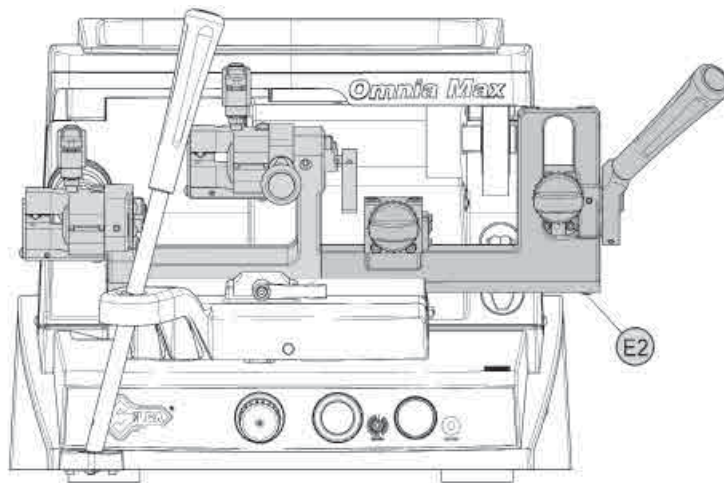
Use the connecting plate and screw set provided with the key-cutting machine and follow the instructions below:



6



7



5.6 Removing the clamp carriage

OMNIA:

- 1) Turn off the machine.
- 2) Loosen the handle (F) and pull out the clamp carriage to the right.
- 3) To fit the clamp carriage see chap. 5.5.4.

OMNIA MAX:

- 1) Turn off the machine.

With clamp carriage for bit, double bit and pump keys:

- 1) Loosen the handle (F) and pull out the clamp carriage to the left.
- 2) To fit the standard clamp carriage see chap. 5.5.5.

With clamp carriage for vertical cuts:

- 1) Loosen the handle (F) and pull out the clamp carriage to the right.
- 2) To fit the vertical cuts clamp carriage see chap. 5.5.6.

With double carriage:

- 1) Loosen the handle (F) and move the carriage (double) slightly to the right.
- 2) Loosen and remove the screw (E2)
- 3) Pull out the clamp carriage to the left.
- 4) To fit the double clamp carriage see chap. 5.5.7.

6 MACHINE INSTALLATION AND PREPARATION

The key-cutting machine can be installed by the purchaser and does not require any special skills. It is supplied ready for use and does not need any special set up. However, the operator may have to control a few things before operating the machine.

6.1 Checking for damage

OMNIA is solid and compact and will not normally damage if transport, unpacking and installation have all been carried out according to the instructions in this manual. However, it is always advisable to check that the machine has not suffered any damage.

6.2 Environmental conditions

To ensure that the best use is made of the key-cutting machine, it is important to place it in a well-aired area which is not too damp.

The ideal conditions for the machine are:

- temperature between 10°C and 40°C; relative humidity: 60% approx.

6.3 Positioning

- 1) Place the machine on a horizontal surface, solid enough to support the weight (32 Kg).
 - to work with ease, we suggest that the workbench be approximately the height of the operator's hip.
 - we recommend leaving a clearance of at least 10 cm behind the machine and 30 cm on each side to ensure good ventilation and facilitate handling (Fig. 27).
- 2) Ensure that the machine's voltage is the same as that of the mains power supply, which must be properly earthed and provided with a differential switch.
- 3) Connect the power supply cable to the power supply socket.

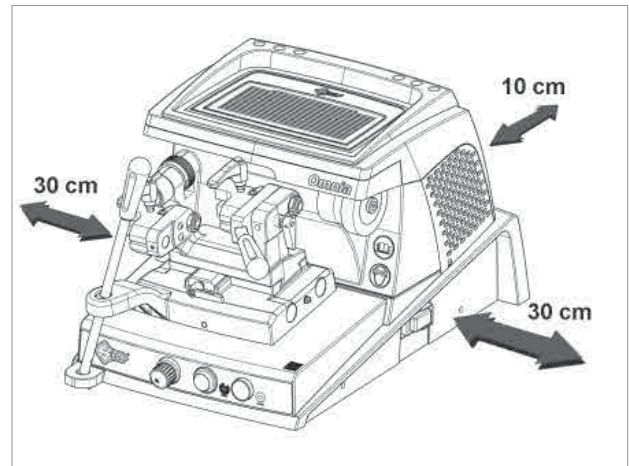


Fig. 27

6.4 Description of work station

The machine needs only one operator, who has all the controls at his/her disposal (see chap.1.1 OMNIA: main working parts, chap.1.2 OMNIA MAX: main working parts and chap.1.2.1):

6.5 Connection to the mains

For the safety of the operator and the machine it is important to ensure that the machine is connected to the proper mains voltage **by means of an earthed differential switch**.

7 MACHINE REGULATION AND UTILIZATION

To get the most out of your key-cutting machine, check gauging periodically.



ATTENTION: before regulating the machine, turn it off and remove the plug.

7.1 Micrometric tracer point

The use of a micrometric tracer point on a machine for cutting bit and pump keys not only provides perfect fast readings, but also rapidly resolves all those small depth variations needed when worn keys are involved.

NOTE: every notch on the micrometric ring nut corresponds to a movement of 0,05 mm.

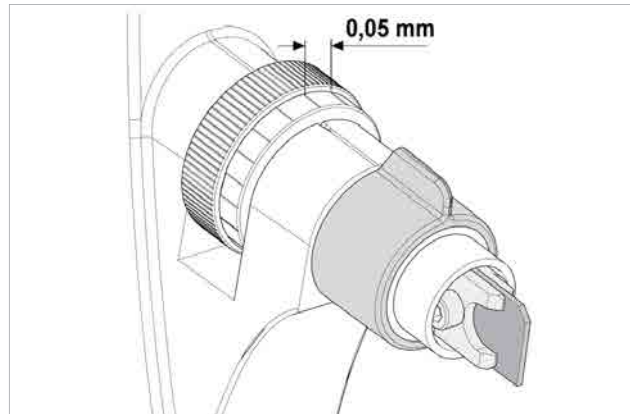


Fig.28

7.2 Tracer point spring

The spring function facilitates the search for spaces with the tracer point before the cutter makes the cuts.

- **To enable the tracer point spring:**

Turn the cam (D1) to the left (Fig.29).

- **To disable the tracer point spring:**

Turn the cam (D1) to the right (Fig.30).

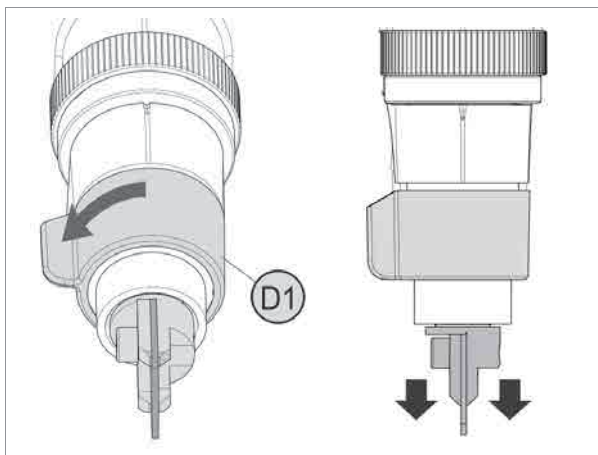


Fig.29 - spring ENABLED

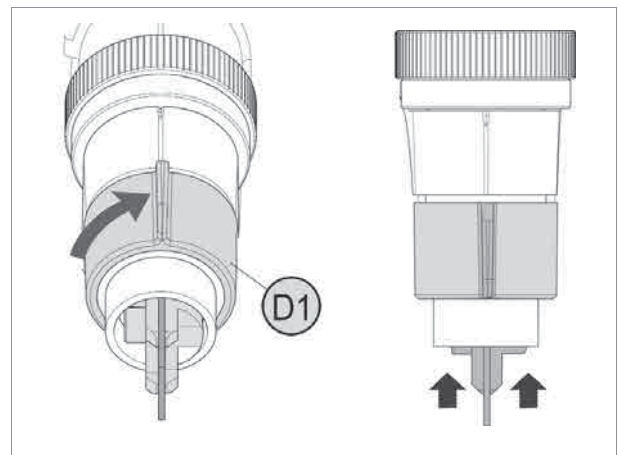


Fig.30 - spring DISABLED

7.3 Using the tilting clamp (carriage for bit/double bit and pump keys)

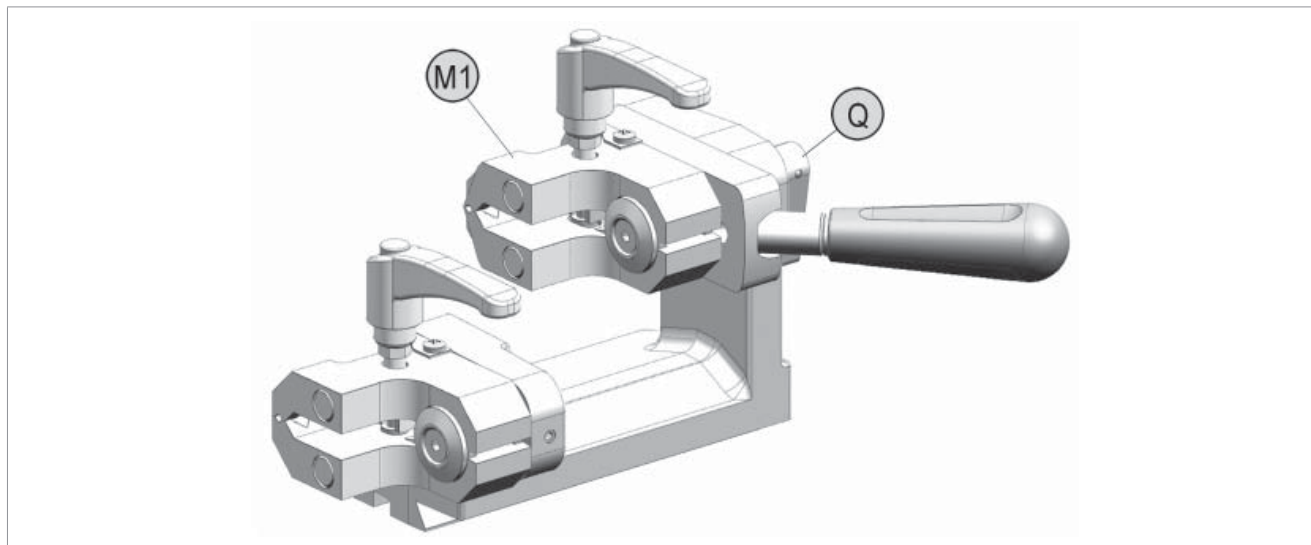


Fig.31

Use the lever (Q) to lock the right-hand clamp (M1) in the horizontal position for calibration and cutting operations on pump keys and those with a centre stop.

Lower the lever (Q) to release the right-hand clamp (M1), which activates oscillation to cut bit/double bit keys (rounding cuts off).

7.4 Locking Y axis

The Y axis locking function is useful when positioning certain bit and double bit keys (especially short ones). It is also used to operate successfully on heavy duty cuts using the carriage for vertical cuts (chap.8.6).

To lock or release the Y axis, turn the knob (G) clockwise or anticlockwise.

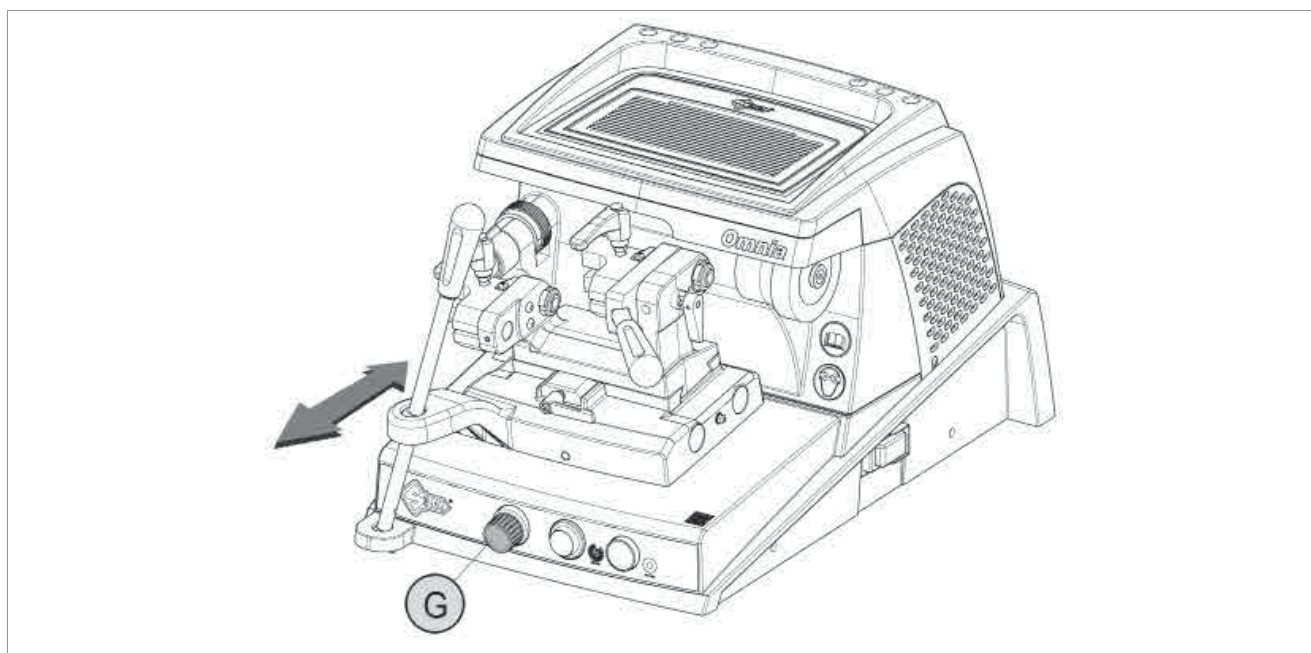


Fig.32

7.5 Checking and calibration

The cutting tool on the machine is the part used to cut the key blanks and should be periodically checked and replaced, if necessary.

Every time the cutting tool is changed, and during periodical operational tests, check calibration.

The OMNIA key-cutting machine requires two types of calibration: **AXIS** and **DEPTH**.

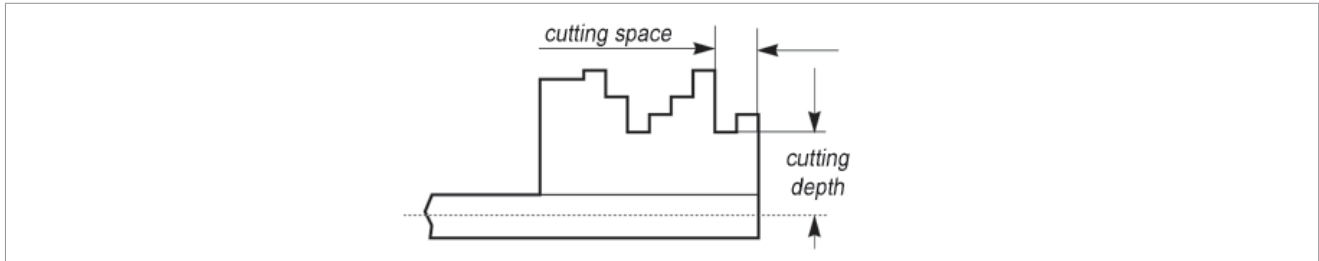


Fig.33

7.5.1 Axis calibration - carriage for bit, double bit and pump keys

Axis calibration is used to adjust the cutting space on the key.

Axis calibration is fixed and established when the key-cutting machine is being assembled.

Axis calibration control:

- 1) Turn off the machine and unplug.
- 2) Use lever (Q) to lock the right-hand clamp in the horizontal position.
- 3) Close the 2 clamps with their handles (P) and (P1).
- 4) Disable the tracer point spring by turning the cam (D1) (chap.7.2).
- 5) Use the lever (L) to take the stops (Y) against the right-hand side of the tracer point and cutter.

The ideal condition is achieved when the internal part of the left-hand stop is up against the right-hand side of the tracer point and the internal part of the right-hand stop is in contact with the right-hand side of the cutter.

If this condition is not achieved, contact Silca After-Sales Service.

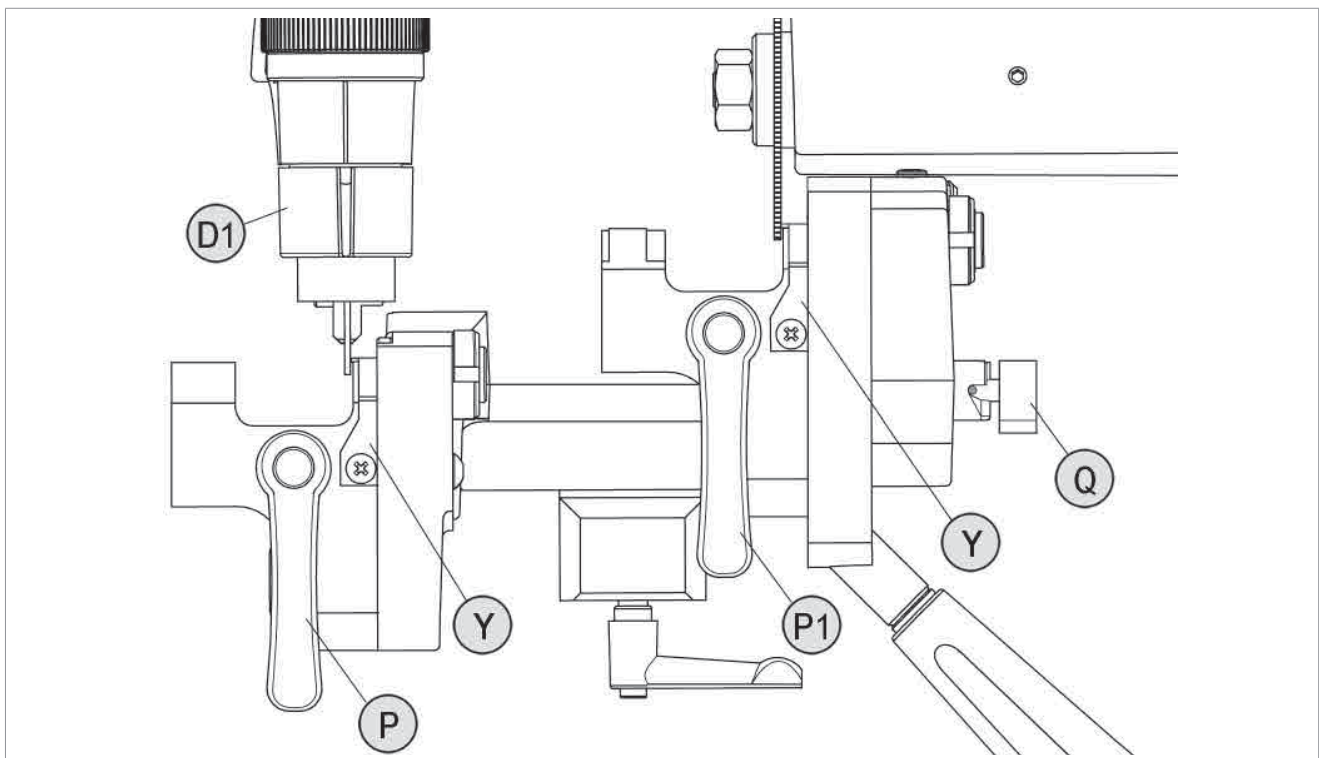


Fig.34

7.5.2 Axis calibration - clamp carriage for vertical cuts (Omnia MAX)

If a clamp is replaced or has imperfections the clamp inter-axis for vertical cuts can be adjusted.

- 1) Turn off the machine and unplug.
- 2) Loosen the clamp knobs, push the clamps forward and insert the calibration pin into the key shaft groove (to the right or left of each clamp.)
- 3) With the machine off take the carriage up to the cutter and tracer point so that it rests against the 2 calibration pins (sideways).
- 4) When the tracer point is in contact with the side of the calibration pin the cutter should skim the side of the corresponding pin. If not:
 - loosen the 2 upper screws (J2) fixing the fixed clamp and the 2 rear screws (J3).
 - regulate the grub screw (K3) to achieve the optimum condition.
 - tighten the 2 screws (J2) and the 2 screws (J3).

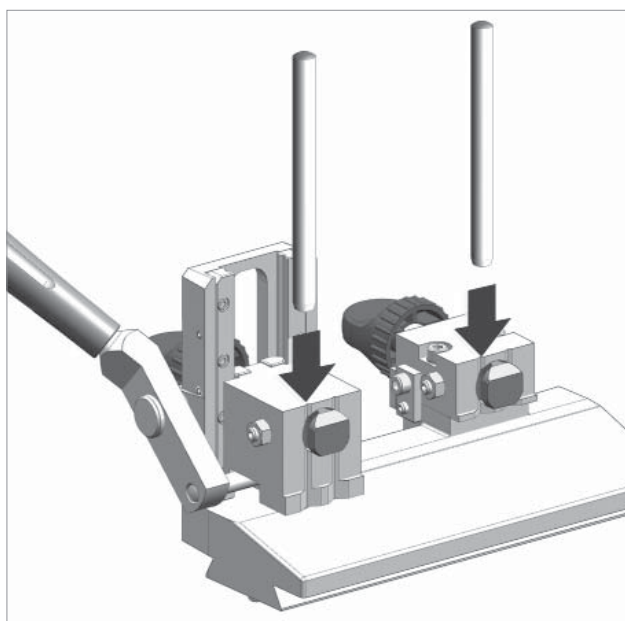


Fig.35

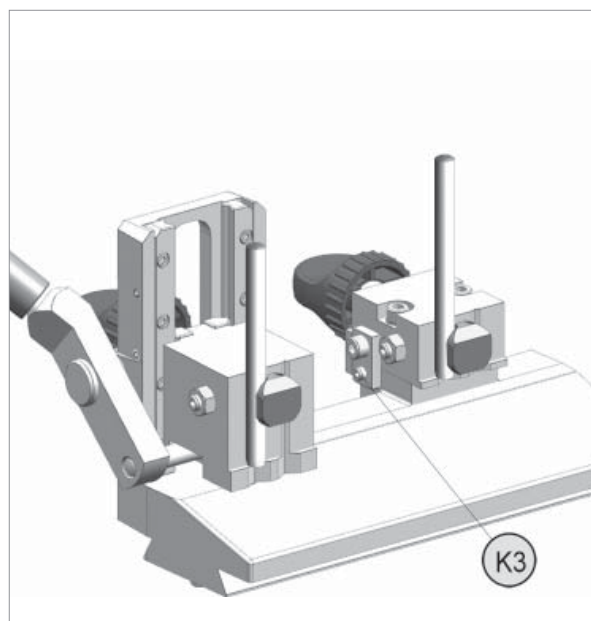


Fig.36

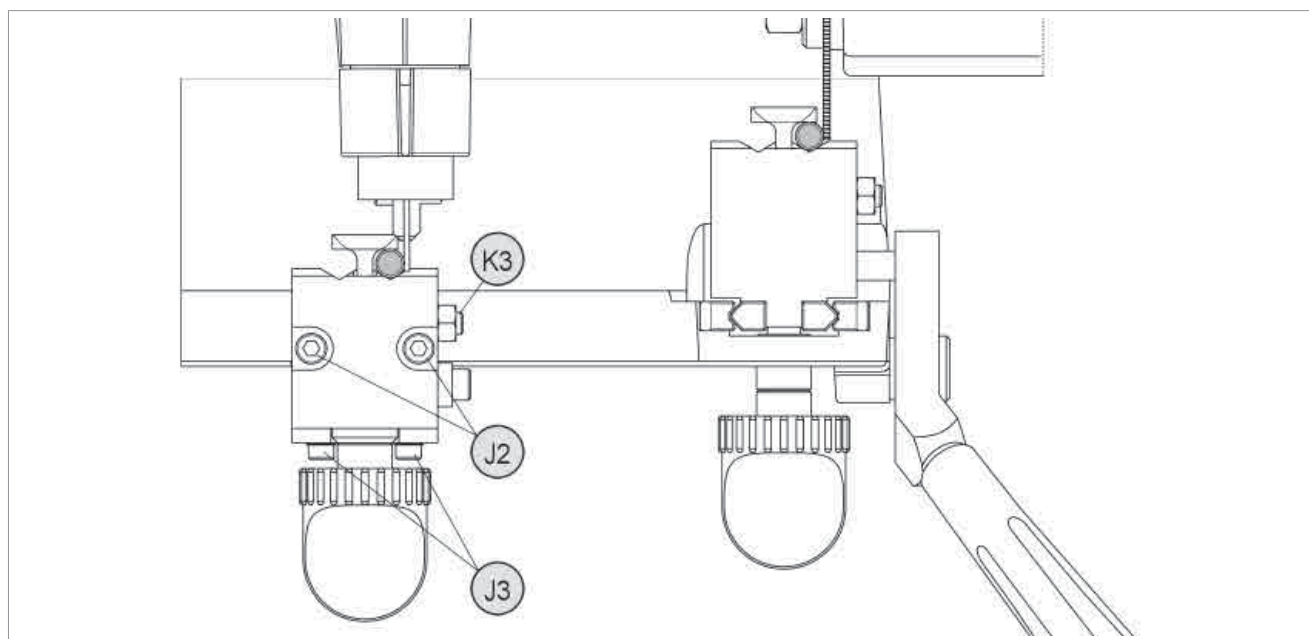


Fig.37

7.5.3 Depth calibration - Carriage for bit, double bit and pump keys

Depth calibration is used to adjust the depths of cuts.

Depth calibration should be checked periodically to ensure perfect machine efficiency, and whenever the cutter or tracer point is replaced.

Depth calibration control:

- 1) Turn off the machine and unplug.
- 2) Use the lever (Q) to lock the right-hand clamp in the horizontal position.
- 3) Place the calibration pins (provided) in place on the clamps.
- 4) Disable the tracer point spring with cam (D1) (chap.7.2).
- 5) Move the carriage and take the calibration pins into contact with the tracer point and cutter.
- 6) Fit a hex key into the brush screw (Fig. 38). Turn the brush clockwise manually and check that the cutter skims the calibration pin in a number of points.
- 7) If necessary, use the tracer point to adjust cutting depths as follows:
 - turn the ring nut (D2) clockwise to move the tracer point forward (less deep cut) (Fig.40).
 - turn the ring nut (D2) anticlockwise to move the tracer point back (deeper cut) (Fig.41).
- 8) Repeat these operations until the cutter skims the calibration pin in a number of points.

NOTE: every notch corresponds to a movement of 0.05 mm.

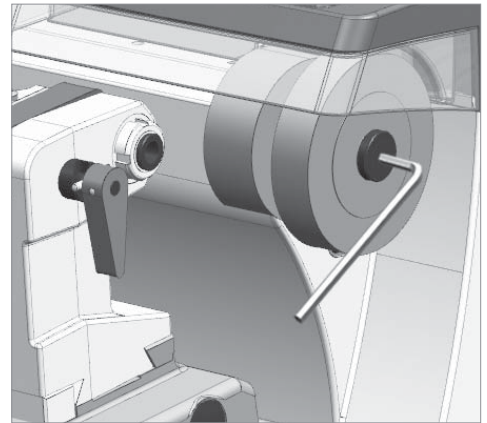


Fig. 38

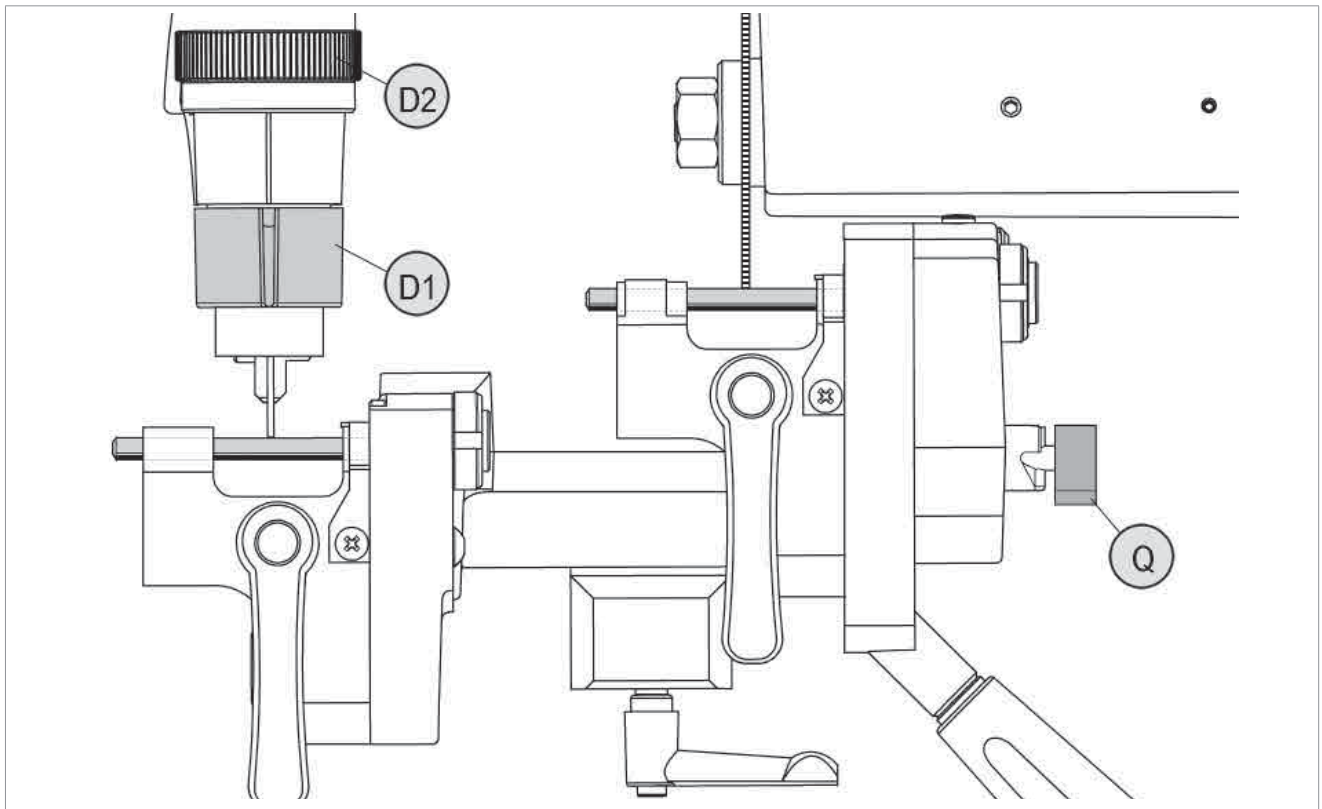


Fig.39

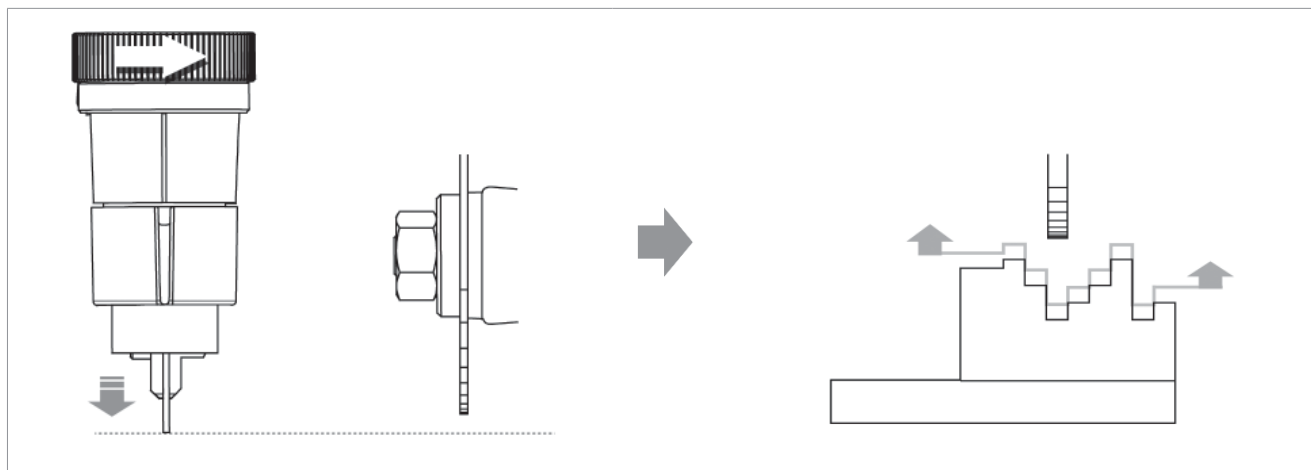


Fig.40

Turning the ring nut to the RIGHT (clockwise) moves the tracer point towards the operator.
Result: **LESS DEEP CUTS**.

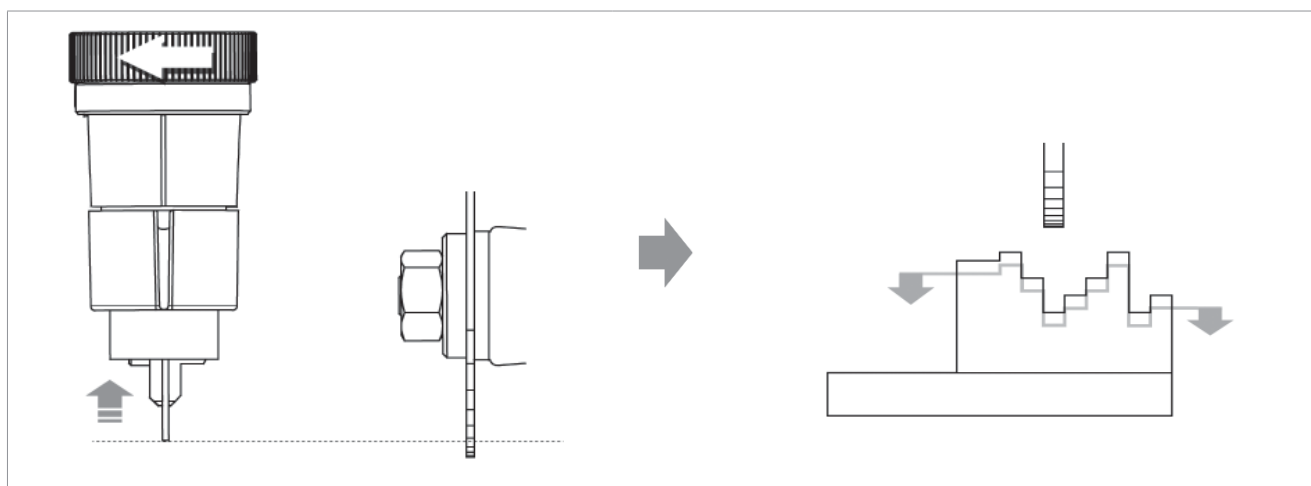


Fig.41

Turning the right nut to the LEFT (anticlockwise) moves the tracer point forward.
Result: **DEEPER CUTS**.

8 CUTTING OPERATIONS



ATTENTION: for complete safety during the cutting operations, take the following precautions:

- Start the motor only after completing the operations on the carriage (securing the keys, etc..).
- Always work with dry hands.
- Check that the machine is properly earthed.
- Wear protective goggles even if the machine has a protective shield.
- Keep hands away from the cutting tool in motion.



ATTENTION: the machine is protected from inadvertent motor start. When the carriage is all the way back towards the operator a microswitch turns off the motor. If the carriage is inadvertently moved towards the cutter the motor does not start.



ATTENTION: the Y axis lock function is useful to facilitate positioning certain bit/double bit keys and cutting with the vertical cuts clamp. Turn the knob (G) clockwise or anticlockwise to lock or release the Y axis (chap.7.4).



ATTENTION: in the event of prolonged use, cutting extra thick bits or keys in hard materials (iron, steel) we recommend using individual ear protection devices.



8.1 Cutting bit and double bit keys

- 1) Use the lever (Q) to lock the right-hand clamp in the horizontal position.
- 2) Fit the keys into the clamps (original key in the left-hand clamp and key blank in the right-hand clamp) with the bit up against the stop (Y).
- 3) Close the clamps making sure that the key shafts are in the V groove and check that the key bits are perpendicular to the tracer point and cutter (Fig.44).
- 4) Lower the lever (Q) to release the right-hand clamp.
- 5) Turn on the machine with the ON/OFF switch (A).
- 6) Use the lever (L) to slowly take the carriage towards the cutter and press the button (B) to start the motor.
- 7) Hold the lever (R) slightly raised with the key facing downwards.
- 8) Take the cut closest to the original key tip against the tracer point and lower the lever (R) to round off the cut.
- 9) Take the carriage back to come out of the cut. Move the carriage sideways and enter the next cut (Fig.45). Do not move sideways once into the cut.
- 10) Complete all the bits in the same way and remove any excess material at the end of the cutting operation (towards the head).
- 11) Take the carriage all the way back (the motor will stop automatically).
- 12) For double bit keys, turn both keys over and repeat the operations described above.
- 13) When the cutting operation is finished, take the carriage all the way back (the motor will stop automatically) and remove the keys.

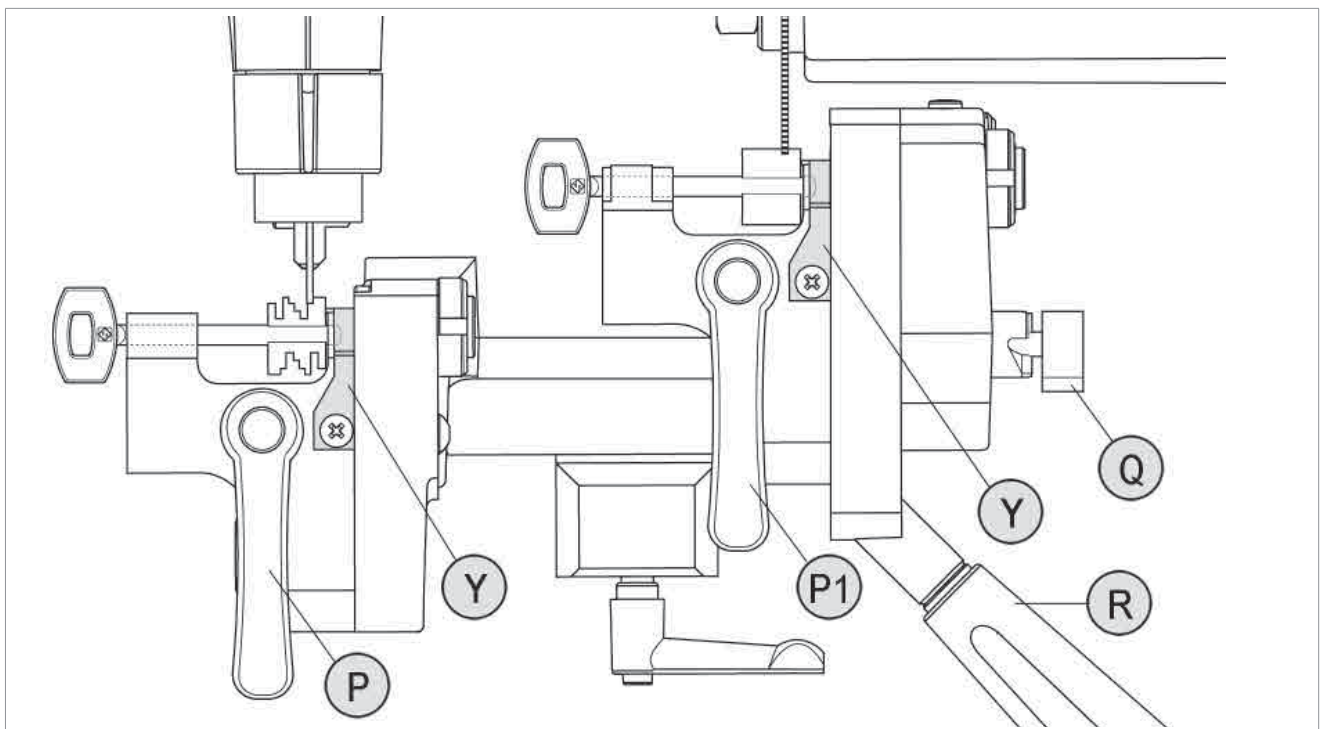


Fig.42

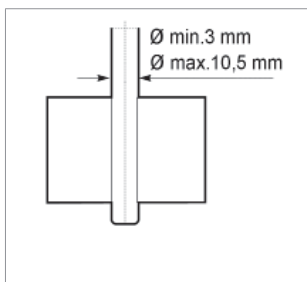


Fig.43

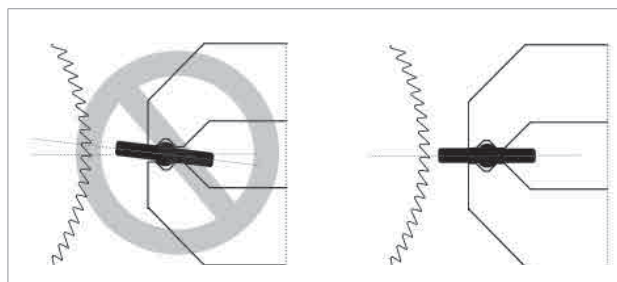


Fig.44

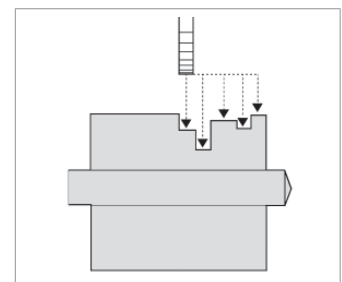


Fig.45

8.1.1 Cutting short keys

If the keys to be cut are very short and do not touch the stop (Y) proceed as follows, observing the illustration.

- 1) Use the lever (Q) to lock the right-hand clamp in the horizontal position.
- 2) Lock the key blank into the right-hand clamp (M1) (as shown) (Fig.42).
- 3) Raise the carriage and place the right-hand side of the bit against the cutter. Lock the carriage in this position with the knob (G).
- 4) Lock the original key into the left-hand clamp (M) (as shown), with the right-hand side of the bit up against the tracer point. In this way the two keys will be perfectly aligned (Fig.42).
- 5) Release the knob (G) and take the carriage all the way back.
- 6) Lower the lever (Q) to release the right-hand clamp.
- 7) Turn on the machine with the ON/OFF switch (A).
- 8) Use the lever (L) to slowly take the carriage towards the cutter and press the button (B) to start the motor.
- 9) Hold the lever (R) slightly raised with the key facing downwards.
- 10) Take the cut closest to the original key tip against the tracer point (do not apply force, remember that the key tip is not held) and lower the lever (R) to round off the cut.
- 11) Take the carriage back to come out of the cut. Move the carriage sideways and enter the next cut. Do not move sideways once into the cut.
- 12) Complete all the bits in the same way and remove any excess material at the end of the cutting operation (towards the head).
- 13) Take the carriage all the way back (the motor will stop automatically).
- 14) For double bit keys, turn both keys over and repeat the operations described above.
- 15) When the cutting operation is finished, take the carriage all the way back (the motor will stop automatically) and remove the keys.

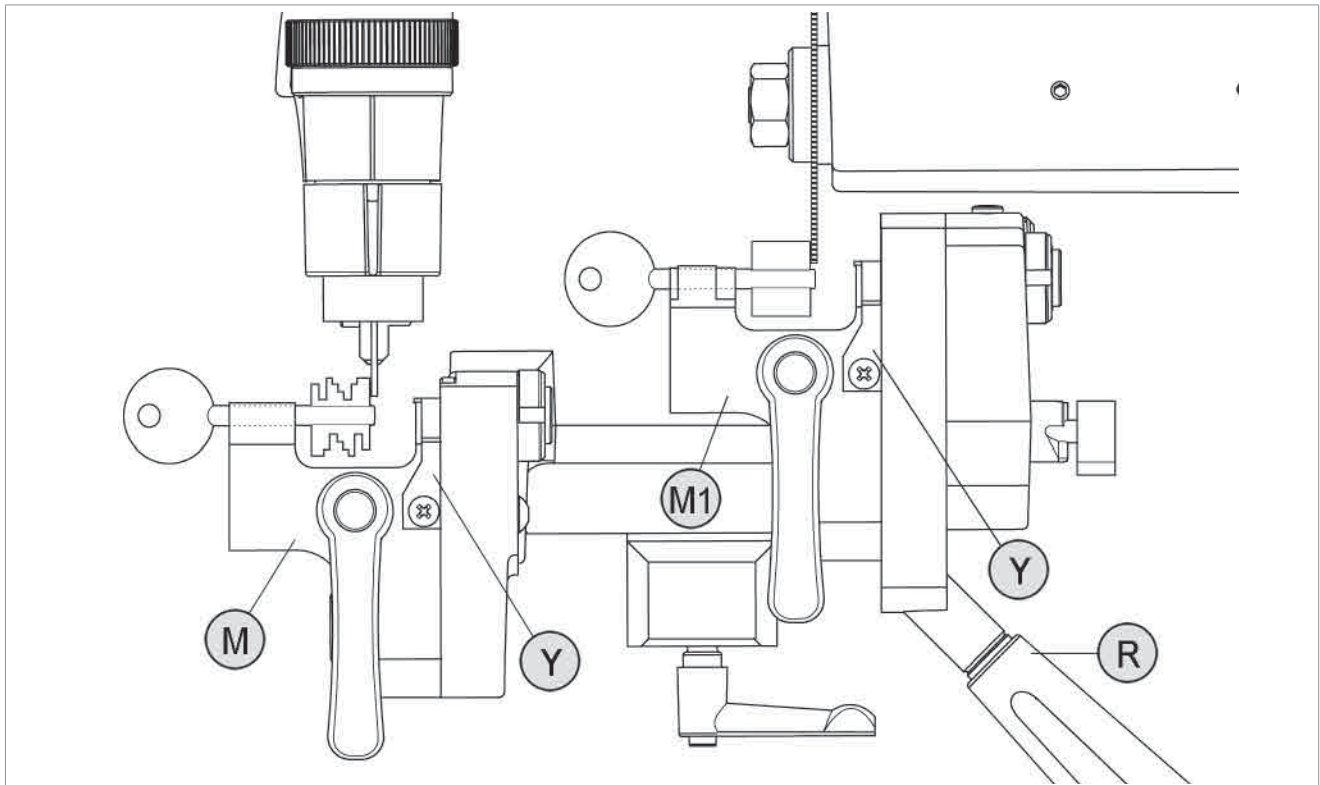


Fig.46

8.2 Cutting double female bit keys

We can also use the instructions for cutting very short bit or double bit keys to cut some bit or double bit (female) keys, taking care to observe and check some dimensional and operational characteristics:

Dimensional:

- Maximum height of bit against stem axis = 15 mm (max)
- Maximum length of bit to be cut = 17 mm (max)

Operational:

- Between the end of the bit (towards the key head) and the left-hand internal side of the clamp there must be a space of 2 mm (max) and no less than 1,5 mm (cutter thickness).
- During cutting (especially for iron keys) do not exert too much pressure when pushing the key towards the cutter, as the key tip has nothing to butt against.

NOTE: the precision of keys cut in this way will refer to the external stem diameter rather than the centre of the internal hole in the tip. Any imprecision between the hole axis and the stem is additional to the normal tolerance for manual cutting.

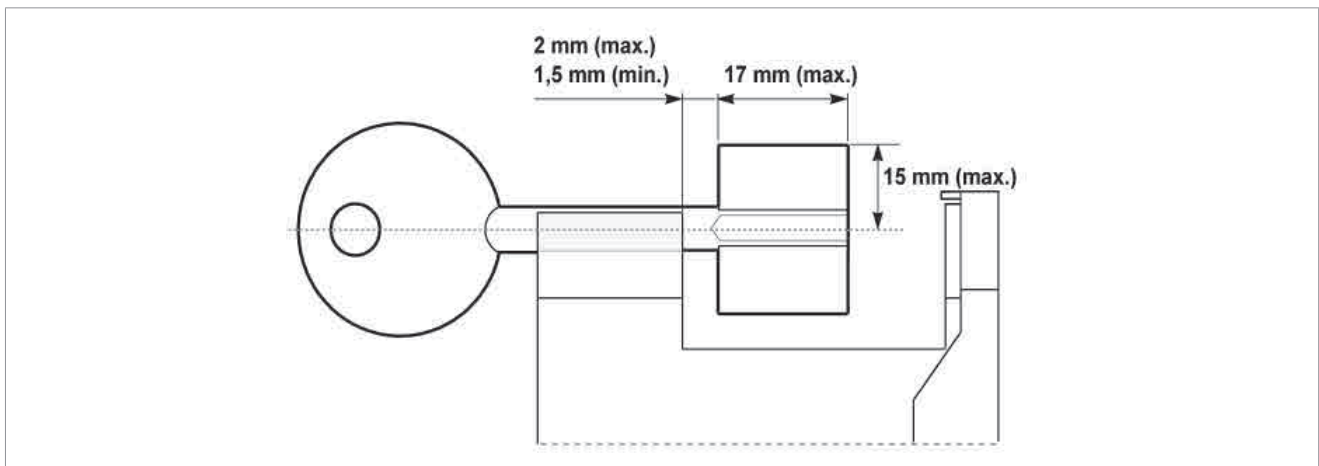


Fig.47

It is advisable to use optional accessories for female bit and double bit keys (see OMNIA and OMNIA MAX Specialist Guide).

8.3 Cutting keys with centre stop

- 1) Use the lever (Q) to lock the right-hand clamp in the horizontal position.
- 2) Loosen the clamp handles slightly to be able to fit the keys.
- 3) Fit the original key into the left-hand clamp with the centre stop up against the clamp and the bit parallel to the clamp (perpendicular to the tracer point); secure the key with the handle (P).
- 4) Fit the key blank into the right-hand clamp with the centre stop up against the clamp and the bit parallel to the clamp (perpendicular to the cutter); secure the key with the handle (P1).

Cutting:

- 1) Turn on the machine with the ON/OFF switch (A).
- 2) Use the lever (L) to slowly take the carriage towards the cutter and press the button (B) to start the motor.
- 3) Take the cut closest to the original key tip against the tracer point (if required release the lever (Q) and lower the lever (R) to round off the cut).
- 4) Take the carriage back to come out of the cut. Move the carriage sideways and enter the next cut. Do not move sideways once into the cut.
- 5) Complete the bit in this way and check the sides of the bit if necessary.
- 6) When the cutting operation is finished, take the carriage all the way back (the motor will stop automatically) and remove the keys.

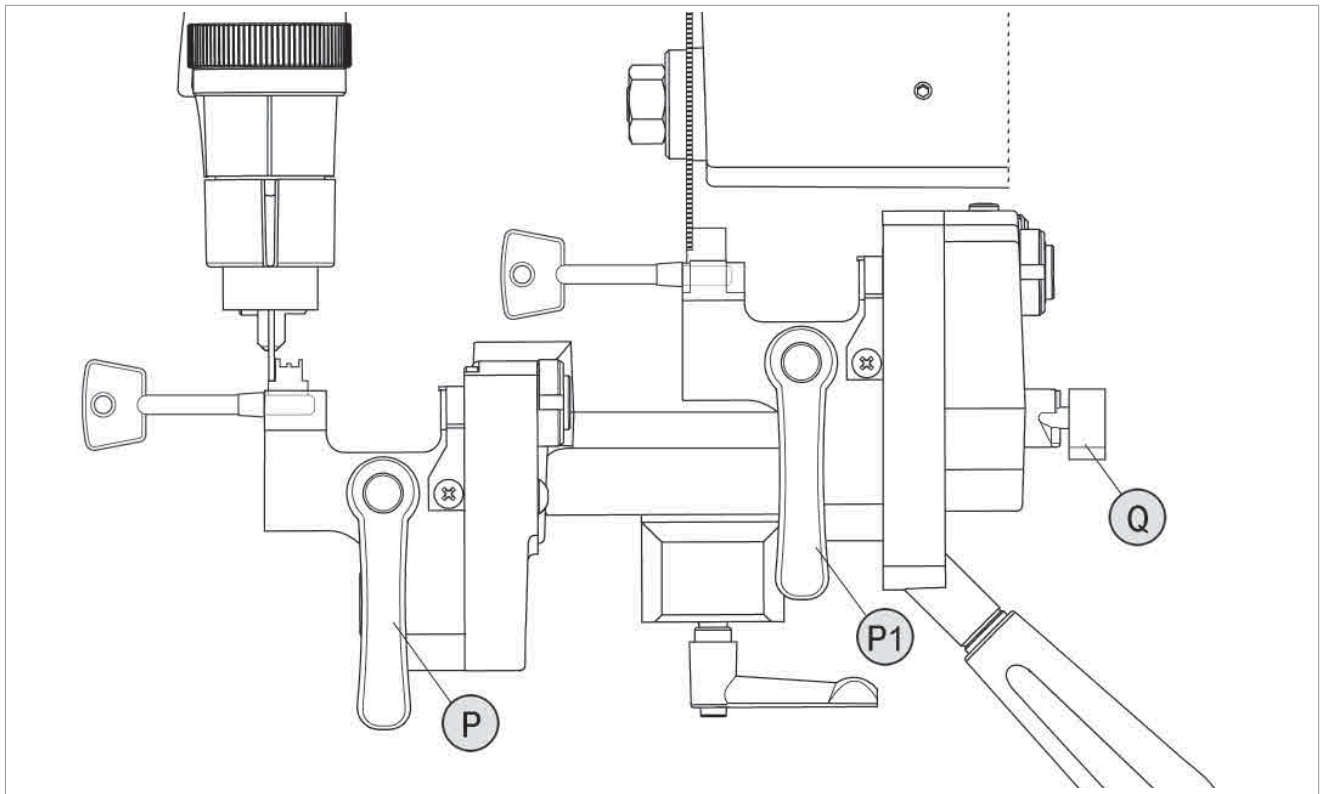


Fig.48

8.4 Cutting bit keys with rear stop (Omnia MAX)

The Omnia MAX clamp carriage for bit/double bit keys has a pin/gauge set (Z) on the left-hand part of each clamp for positioning keys with rear stops.

The pin can change position by moving from right to left, or vice versa. The length of the pin has small grooves along it to provide the operator with the following indications:

- sound, when the ball presser enters one of these positions/grooves (a click is heard);
- visual, to position the keys on the same notch. The 2 pins-gauges (Z) must show the same number of clicks/grooves.

- 1) Use the lever (Q) to lock the right-hand clamp in the horizontal position.
- 2) Fit the keys into the clamps, moving them to the right until the rear stop goes up against the (Z) (Fig.50). The spacing on the gauge set (Z) must be the same for both clamps ($a = b$).

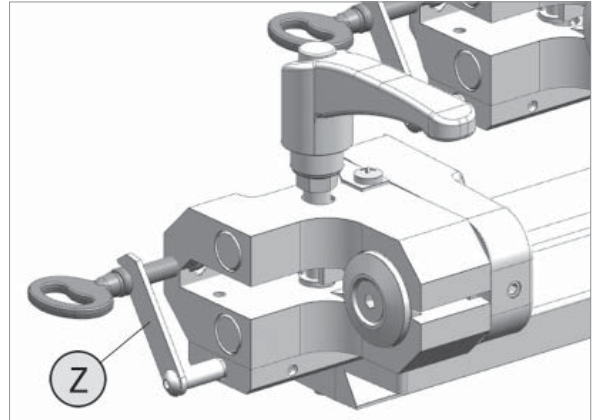


Fig. 49

- 3) Secure the keys with the handles (P) and P1).
- 4) Lower the lever (Q) to release the right-hand clamp.
- 5) Turn the machine on with the ON/OFF switch .
- 6) Use the lever (L) to slowly take the carriage towards the cutter and press the button (B) to start the motor.
- 7) Hold the lever (R) slightly raised with the key facing downwards.
- 8) Take the cut closest to the original key tip against the tracer point and lower the lever (R) to round off the cut.
- 9) Take the carriage back to come out of the cut. Move the carriage sideways and enter the next cut. Do not move sideways once into the cut.
- 10) Complete the bit in this way and remove any excess material at the end of the operation (towards the head).
- 11) Take the carriage all the way back (the motor will stop automatically).

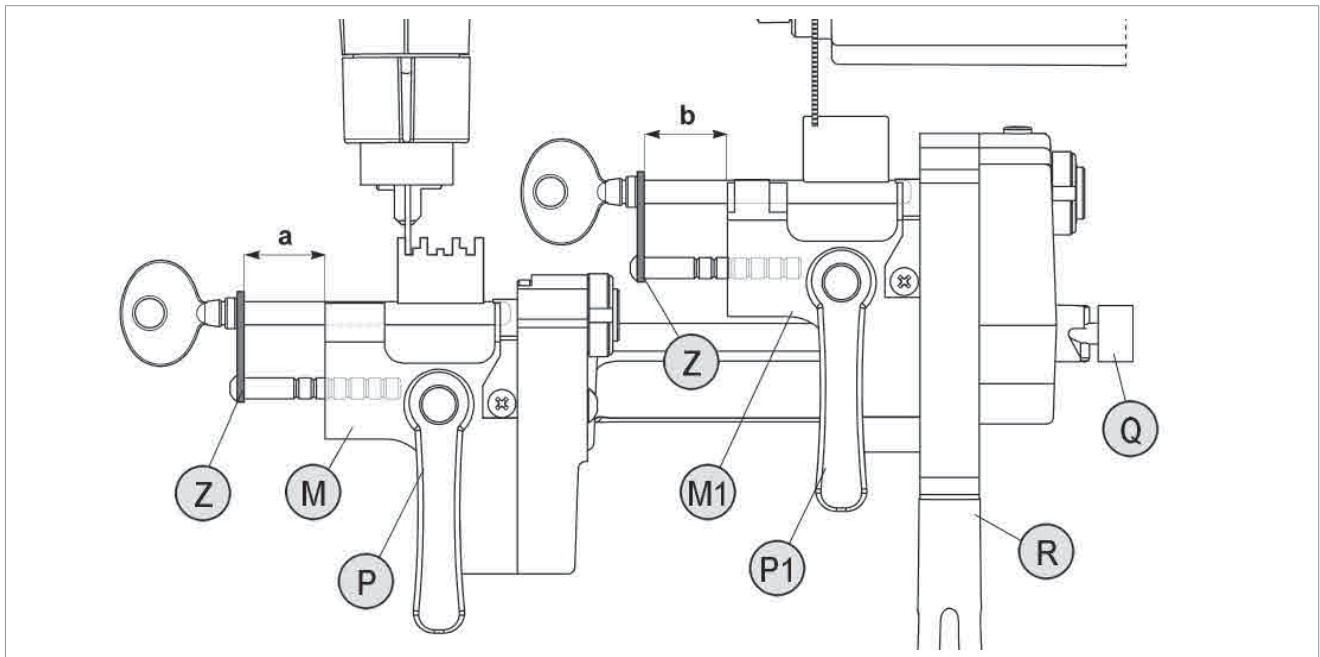


Fig.50

8.5 Cutting pump keys

- 1) Use the lever (Q) to lock the right-hand clamp in the horizontal position.
- 2) Fit the original key into the left-hand clamp (M) with the bit up against the lower jaw of the clamp (Fig.52).
- 3) Use the special seats for pump keys: for keys with round shafts and Mottura type keys with square shafts (Fig.51).
- 4) Fit the key blank into the right-hand clamp (M1) in the same way.

NOTE: we recommend using the tracer point spring function (chap.7.2).

- 5) Turn on the machine with the ON/OFF switch.
- 6) Use the lever (L) to slowly take the carriage towards the cutter and press the button (B) to start the motor.
- 7) Take the first cut on the right of the original key against the tracer point and push the carriage all the way.
- 8) Take the carriage back to come out of the cut. Move the carriage sideways and enter the next cut. Do not move sideways once into the cut.
- 9) Complete all the bits in the same way and if necessary check the sides of the bits.
- 10) When the cutting operation is finished, take the carriage all the way back (the motor will stop automatically) and remove the keys.

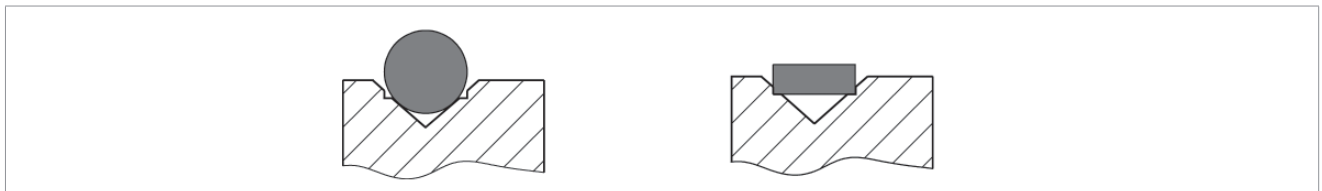
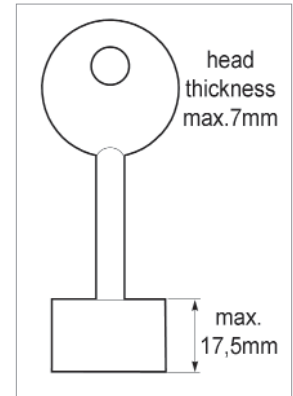


Fig.51

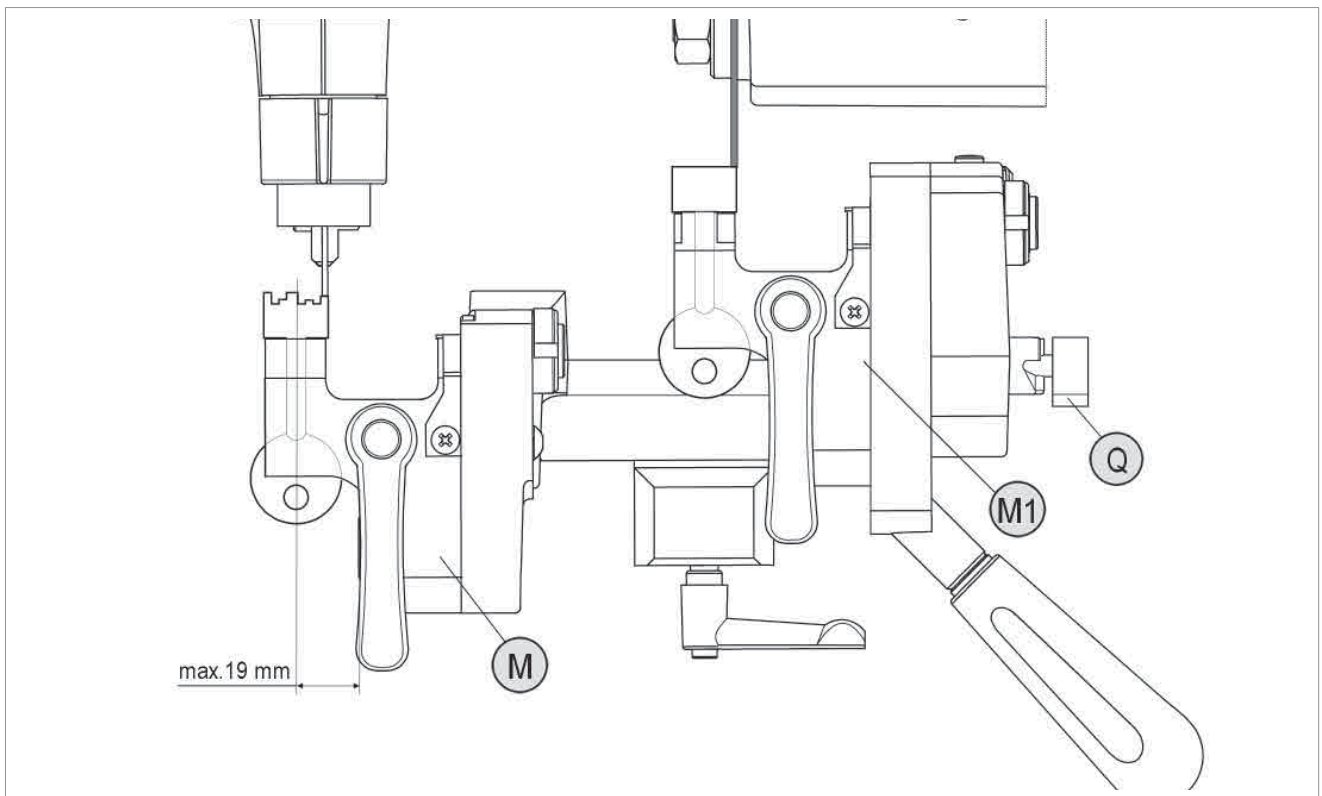


Fig.52

8.6 Cutting keys with vertical cuts (Omnia MAX carriage for vertical cuts)

The keys can be placed with the bit on the left or right, according to the position of the groove to be turned towards the tracer point and cutter.

- 1) Loosen the knob (K) and push forward to fit the original key (with the head upwards) into its seat on the fixed clamp (J). Take the bit up against the clamp stop and secure the key with the knob (K).
- 2) Loosen the knob (K1) and push forward to fit the key blank (with the head upwards) into its seat on the mobile clamp (J1). Take the bit up against the clamp stop and secure the key with the knob (K1).

NOTE: we recommend using the tracer point spring function (chap.7.2).

NOTE: we recommend using the Y axis carriage lock function (chap.7.4) for very thick keys or keys in particularly hard material.

- 3) Turn on the machine with the ON/OFF switch (A).
- 4) Use the lever (L) to slowly take the carriage towards the cutter and press the button (B) to start the motor.
- 5) Enter the vertical cut/groove on the original key with the tracer point (press firmly against the tracer point).
- 6) Use the lever (N) to move the mobile clamp (J1) from bottom to top. Take the carriage back to come out of the cut. Move the carriage sideways and, if applicable, enter the next groove to complete cutting the key. Do not move sideways once into the cut.
- 7) When the cutting operation is finished, take the carriage all the way back (the motor will stop automatically) and remove the keys.

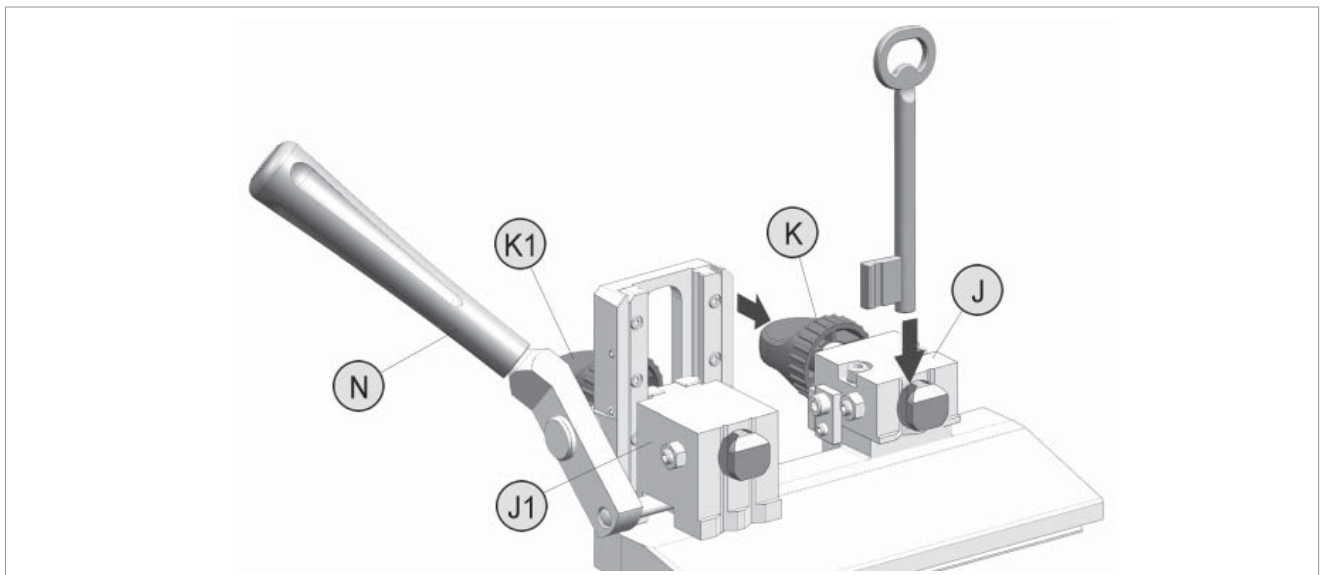


Fig.53

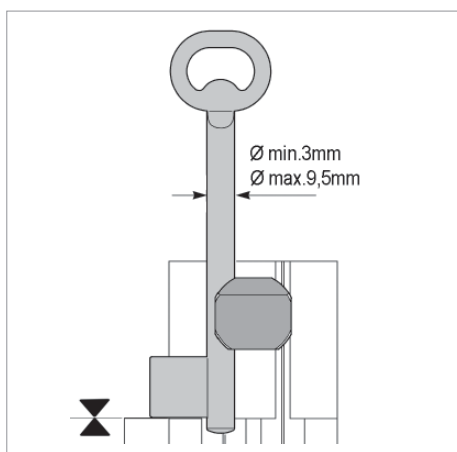


Fig.54

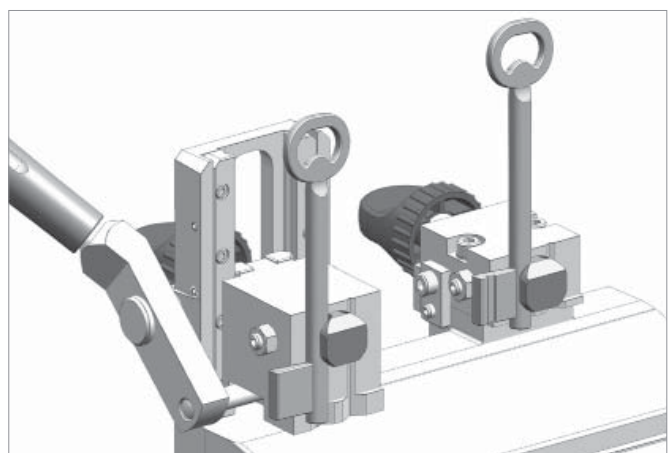


Fig.55

9 MAINTENANCE



ATTENTION: for repairs or replacement of parts for maintenance, the 'CE' mark is guaranteed only if original spare parts provided by the manufacturer are used.

Although the key-cutting machine does not require special maintenance, it is advisable to check and, if necessary, replace the parts subject to wear, such as: the belt, cutting tool, brush, tracer point. Replacement is simple and can be carried out by the operator.

CLEANING

Keep the carriage and clamps free of chippings from the cutting operations by cleaning with a dry brush.



ATTENTION: do not use compressed air!

ATTENTION: to keep the machine well maintained we recommend using protective oil, e.g. WD40 or similar, applied to the burnished mechanical parts. This prevents oxidation of the parts in question (clamps, guides, carriages...).

Before starting any type of maintenance (checks or replacements), read the instructions below:

- **Never carry out maintenance or servicing with the machine switched on.**
- **Always remove the mains plug.**
- **Follow all the instructions in the manual to the letter.**
- **Use original spare parts.**
- **Always check that any screws or nuts removed when replacing a piece are properly tightened.**

9.1 Replacing the carriage



ATTENTION: turn off the machine and unplug.

To remove and install the carriage see the instructions in chap.5.6 and chapters 5.5.4, 5.5.5, 5.5.6 and 5.5.7.

- 1) Fit the new carriage into the dovetail seat and slide all the way up to the limit switch. Secure by tightening the handle (F).
- 2) Check machine calibration (chap.7.5).

9.2 Replacing the tracer point

Proceed as follows to replace the tracer point (D):



ATTENTION: turn off the machine and unplug.

- 1) Enable the tracer point spring function (chap.7.2).
- 2) Loosen the screw (D3).
- 3) Remove the worn tracer point.
- 4) Fit the new tracer point, pushing all the way in.
- 5) Tighten the screw (D3).
- 6) Check depth calibration as described in chap.7.5.3.

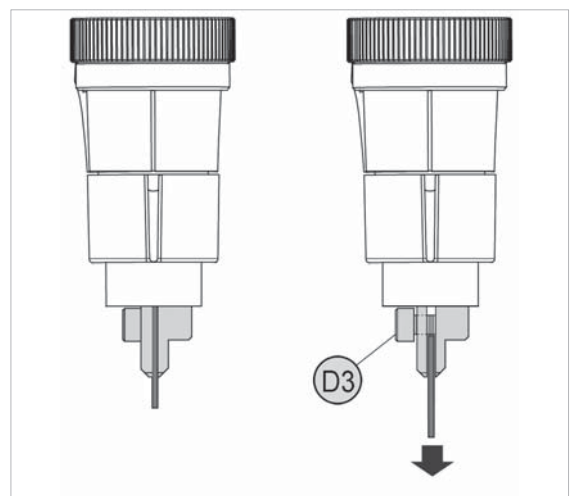


Fig. 56

9.3 Replacing the cutter



ATTENTION: turn off the machine and unplug.

- 1) Remove the carriage (chap.5.6).
- 2) Slot the locking rod (provided) into the hole of the cutter shaft (Fig.57 and Fig.58).
- 3) Use the spanner provided to loosen the cutter locking nut.



ATTENTION: the thread is left-handed.

- 1) Remove the worn cutter.
- 2) Carefully clean the new cutter and its seat.
- 3) Install the new cutting tool and tighten the nut.



ATTENTION: the tool rotates clockwise.

- 4) Remove the locking rod.
- 5) Re-position the carriage and check depth calibration as described in chap.7.5.3.

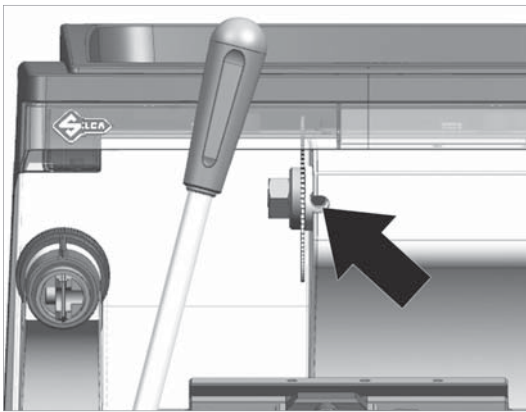


Fig.57

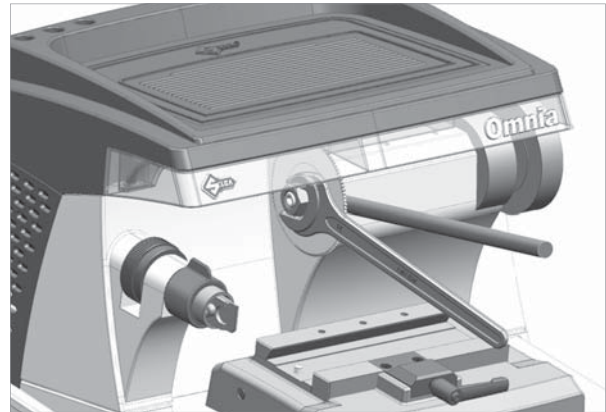


Fig.58

9.4 Replacing the brush



ATTENTION: turn off the machine and unplug.

- 1) Remove or move the carriage (chap.5.6).
- 2) Slot the locking rod (provided) into the hole of the cutting tool shaft (Fig.57).
- 3) Use the Allen key to loosen the screw (U2) and remove the brush (Fig. 59).
- 4) Replace the brush and tighten the screw (U2) with the Allen key.

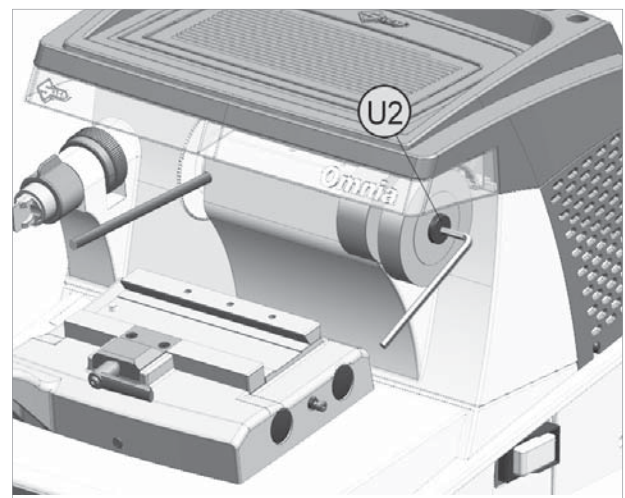


Fig. 59

9.5 Replacing the fuses

Fuses should be checked with a tester (ohmmeter, multimeter, etc.) as they may appear to be in good condition even when they are electrically faulty. Fuses must always be replaced with the same amperage and type (rapid or delayed), as indicated in this manual.

The OMNIA key-cutting machine has 2 fuses placed in the inlet socket to protect the key-cutting machine from sudden changes in voltage or short circuits.

- 1) Turn the machine off and unplug it from its power supply cable.
- 2) Use a screwdriver to open the fuse plate in the power socket.



ATTENTION: fuses must always be replaced with others of the same type (delayed) and with the same Amps (1,6 Ampere).

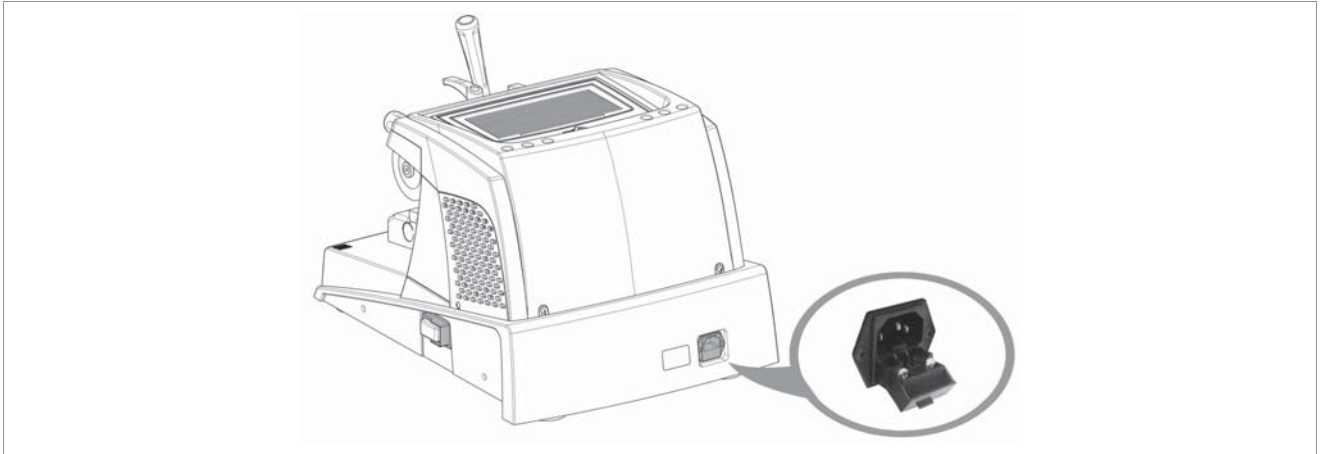


Fig.60

9.6 Accessing the bottom compartment



ATTENTION: turn off the machine and unplug.

- 1) Remove the swarf tray (V) (Fig.61).
- 2) Remove the clamp carriage (chap.5.6).
- 3) Remove the mat and any objects on the upper cover.
- 4) Place the machine on its left-hand side.
- 5) Loosen and remove the 4 feet (V1).
- 6) Loosen the 2 screws (X1) and remove the bottom cover (X).

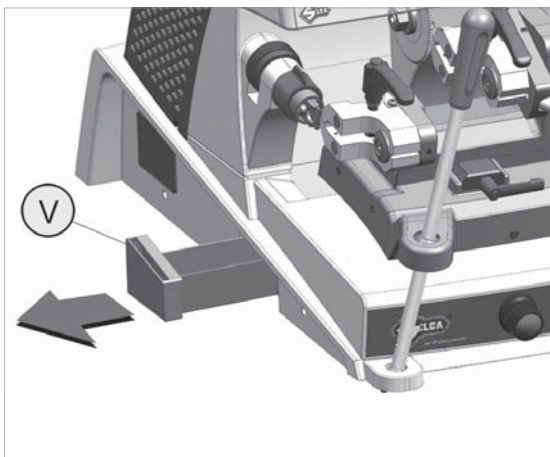


Fig.61

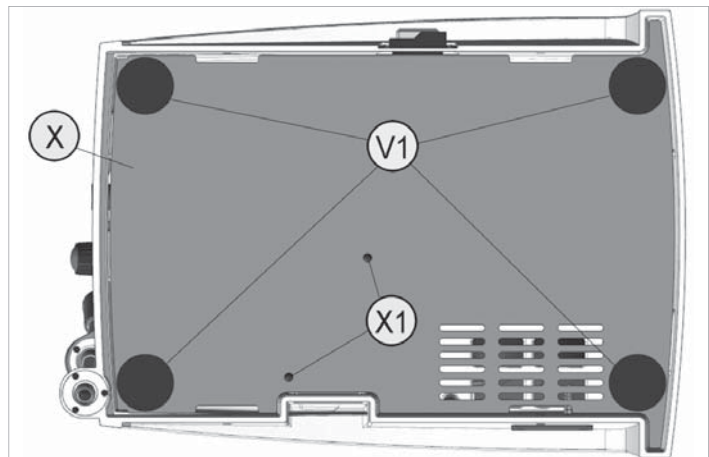


Fig.62

9.7 Replacing the ON/OFF switch



ATTENTION: turn off the machine and unplug.

- 1) Gain access to the bottom compartment (chap.9.6).
- 2) Disconnect the 4 connectors (A5) (A6) from the switch, observing their position carefully (Fig.64).
- 3) Press the fixing tabs on the switch so that it can be pulled out.
- 4) Fit the new switch into its seat.
- 5) Re-connect the 4 connectors (A5) (A6).
- 6) Put the bottom cover (X) in place and secure with the screws (X1); screw in the 4 feet (V1) (Fig.62).
- 7) Place the machine upright on the worktop and insert the swarf tray (V) (Fig.61).

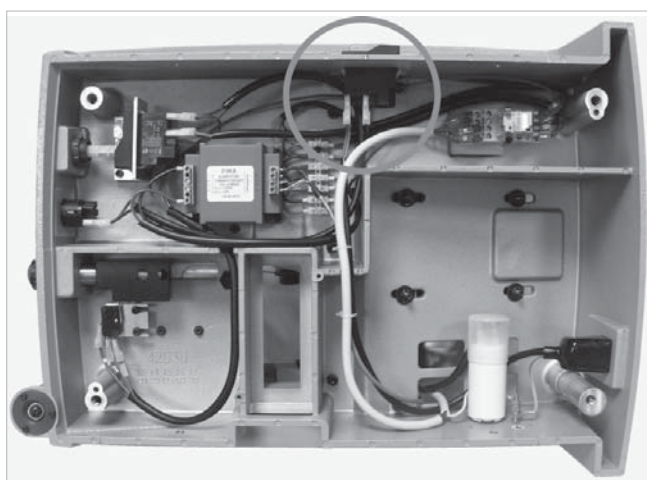


Fig.63

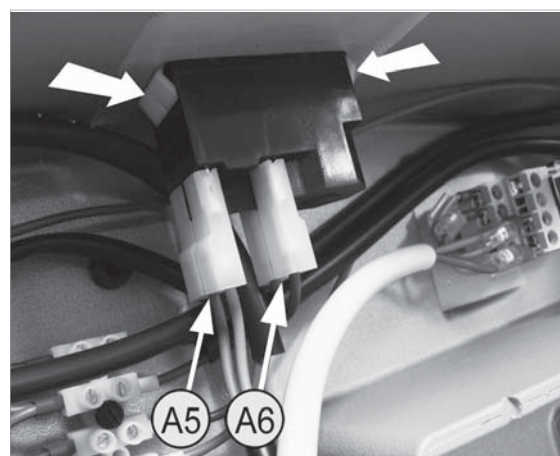


Fig.64

9.8 Replacing the motor start button



ATTENTION: turn off the machine and unplug.

- 1) Gain access to the bottom compartment (chap.9.6).
- 2) Loosen the ring nut (A3) and remove the motor start button (B).
- 3) Remove the push button and ring nut.
- 4) Fit the new push button and tighten the ring nut (A3).

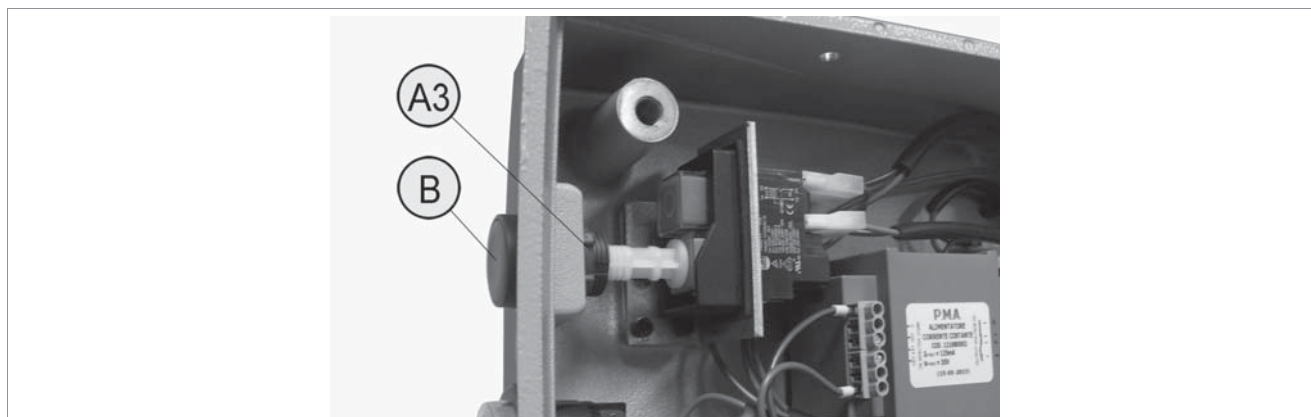


Fig.65

9.9 Replacing the reset switch



ATTENTION: turn off the machine and unplug.

- 1) Gain access to the bottom compartment (chap.9.6).
- 2) Loosen the ring nut (A3) and remove the motor start button (B) (Fig.65).
- 3) Disconnect the 4 connectors (A4) on the switch, observing their position carefully (Fig.66).
- 4) Press the fixing tabs on the switch so that it can be pulled out towards the operator. Observe its position carefully.
- 5) Fit the new switch, taking care to position it properly.
- 6) Re-connect the 4 connectors (A4).
- 7) Place the bottom cover (X) in position, secure with the screws (X1) and screw in the 4 feet (V1) (Fig.62).
- 8) Place the machine upright on the worktop and insert the swarf tray (V).

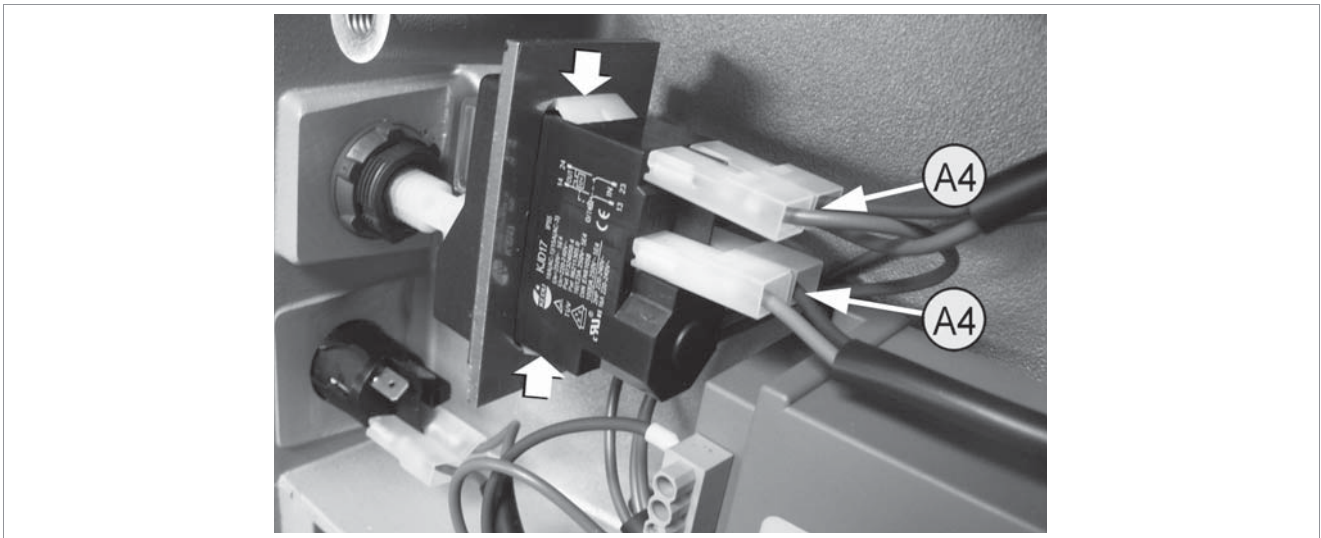


Fig.66

9.10 Replacing the microswitch



ATTENTION: turn off the machine and unplug.

- 1) Gain access to the bottom compartment (chap.9.6).
- 2) Disconnect the 3 connectors (c) (nc) (no) (Fig.67).
- 3) Loosen the 2 support plate screws (P3) and remove.
- 4) Loosen the 2 screws (R3) and 2 nuts (R4) so that the microswitch can be removed (Fig.68).
- 5) Attach the new microswitch to the plate with the 2 screws (R3) and nuts (R4).
- 6) Replace the plate and secure with the 2 screws (P3). When the carriage is idle (fully back towards the operator) the microswitch lever must be down.
- 7) Place the bottom cover (X) in position, secure with the screws (X1) and screw in the 4 feet (V1) (Fig.62).
- 8) Place the machine upright on the worktop and insert the swarf tray (V).

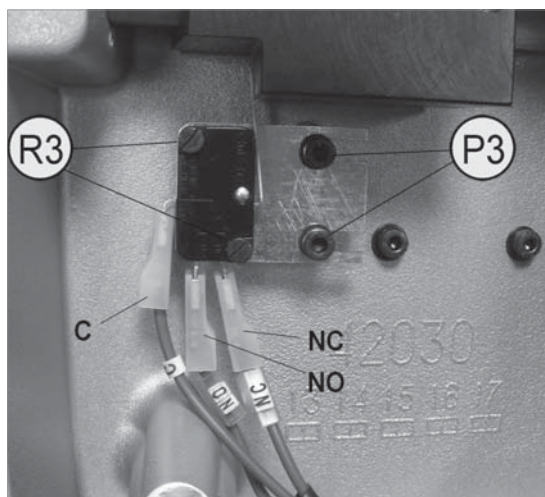


Fig. 67

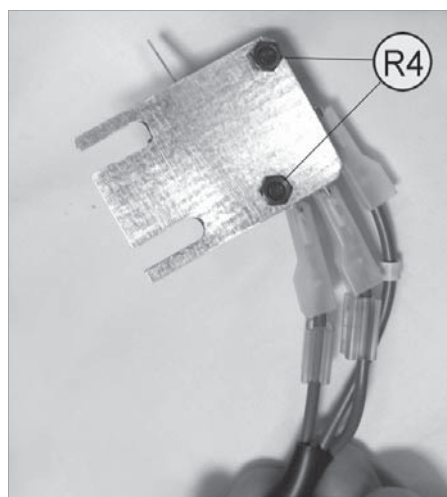


Fig. 68

9.11 Replacing the brush button



ATTENTION: turn off the machine and unplug.

- 1) Gain access to the bottom compartment (chap. 9.6).
- 2) Disconnect the 2 push button connectors (U1), observing their position carefully (Fig. 69).
- 3) Press the fixing tabs on the switch so it can be pulled outwards.
- 4) Fit the new push button into its seat.
- 5) Re-connect the connectors.
- 6) Place the bottom cover (X) in position, secure with the screws (X1) and screw in the 4 feet (V1) (Fig. 62).
- 7) Place the machine upright on the worktop and insert the swarf tray.

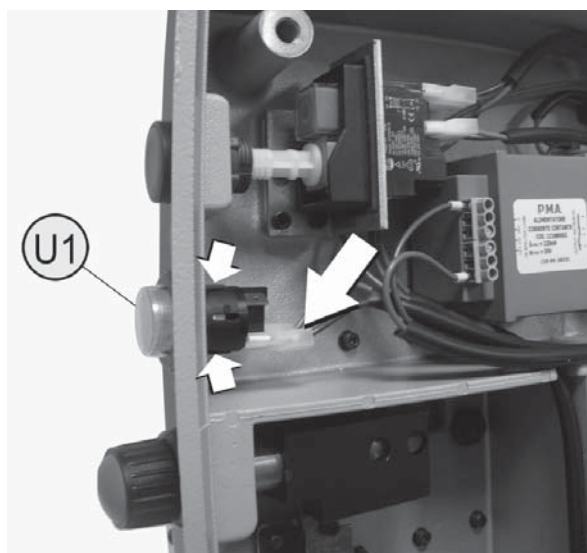


Fig. 69

9.12 Replacing the plug/socket/filter



ATTENTION: turn off the machine and unplug.

- 1) Loosen the 2 screws (A2).
- 2) Gain access to the bottom compartment (chap.9.6).
- 3) Disconnect the 2 connectors (A5) from the ON/OFF switch, loosen the nuts (X3) and (X4) in order to remove the earth wire, and remove the plug (Fig.71).
- 4) Place the new socket in its seat with the fuse box at the bottom and secure with the 2 screws (A2).
- 5) Connect the 2 connectors (A5) on the new plug to the ON/OFF switch, re-connect the earth wire and tighten the nuts (X3) and (X4).
- 6) Place the bottom cover (X) in position, secure with the screws (X1) and screw in the 4 feet (V1) (Fig.62).
- 7) Place the machine upright on the worktop and insert the swarf tray (V).

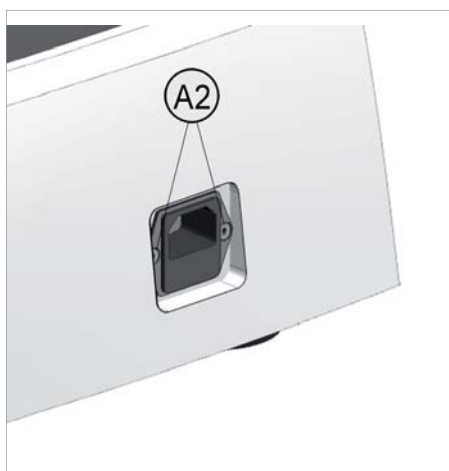


Fig.70

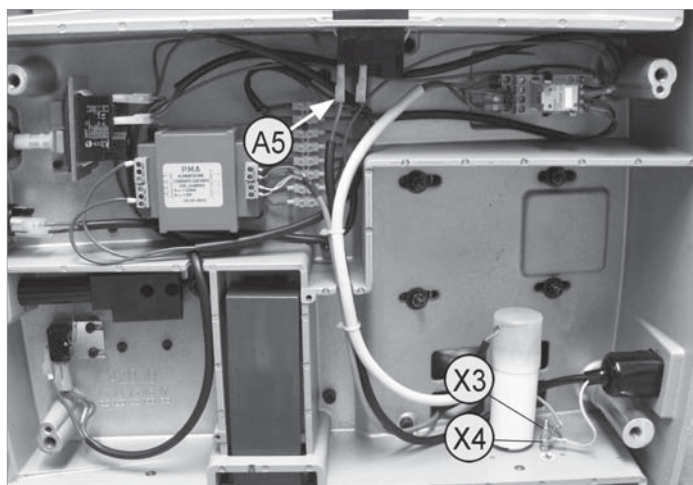


Fig.71

9.13 Replacing the relay



ATTENTION: turn off the machine and unplug.

- 1) Gain access to the bottom compartment (chap.9.6).
- 2) Release the 2 engaging levers (B2) from the relay (B3).
- 3) Remove the relay from its holder.
- 4) Fit the new relay to its support and engage the 2 levers (B2).
- 5) Place the bottom cover (X) in position, secure with the screws (X1) and screw in the 4 feet (V1) (Fig.62).
- 6) Place the machine upright on the worktop and insert the swarf tray (V).

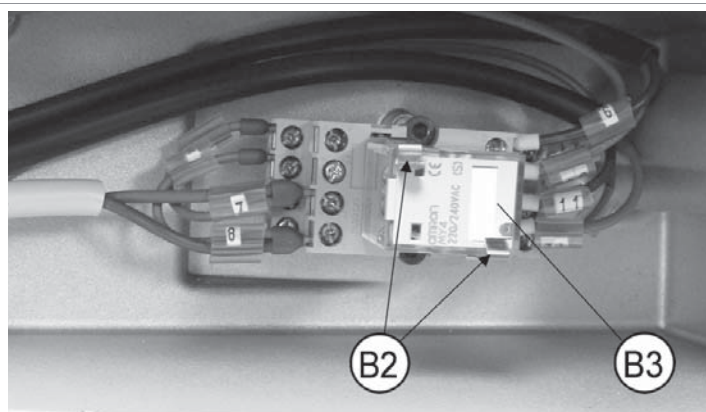


Fig.72

9.14 Replacing the lamp power box



ATTENTION: turn off the machine and unplug.

- 1) Gain access to the bottom compartment (chap.9.6).
- 2) Loosen the 4 low voltage (35V) wire fixing screws (K5), observing their position carefully.
- 3) Loosen the 2 power lead fixing screws (K6) (one wire in position 0 and one in the position of the voltage involved 230V).
- 4) Loosen the 4 power box fixing screws (K7) and remove.
- 5) Install and secure the new power box with the 4 screws (K7).
- 6) Use the screws (K5) to fix the 4 low voltage wires into the 35V connectors on the transformer, observing their position carefully.
- 7) Use the screws (K6) to fix the 2 power leads into the connectors on the power box (one wire in position 0 and one in the position of the voltage involved 230V). **ATTENTION: observe the position of the wires according to the voltage (Fig.73).**
- 8) Place the bottom cover (X) in position, secure with the screws (X1) and screw in the 4 feet (V1) (Fig.62).
- 9) Place the machine upright on the worktop and insert the swarf tray (V).

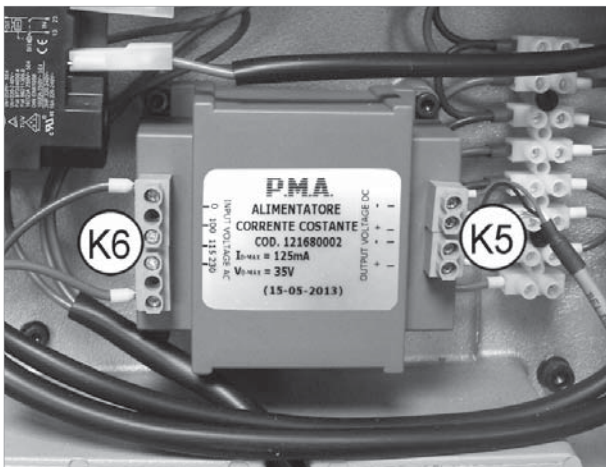


Fig.73

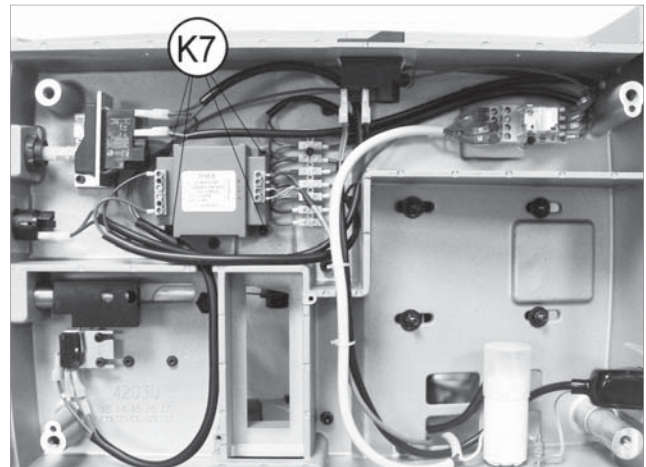


Fig.74

9.15 Replacing the motor condenser



ATTENTION: turn off the machine and unplug.

- 1) Gain access to the bottom compartment (chap.9.6).
- 2) Remove the condenser cap and disconnect the 2 connectors (C4) (Fig.75) observing their position carefully.
- 3) Loosen and remove the old condenser from the machine body, and replace with a new one.
- 4) Connect the 2 connectors (C4), observing their position carefully, and replace the cap on the new condenser.
- 5) Place the bottom cover (X) in position, secure with the screws (X1) and screw in the 4 feet (V1) (Fig.62).
- 6) Place the machine upright on the worktop and insert the swarf tray (V).

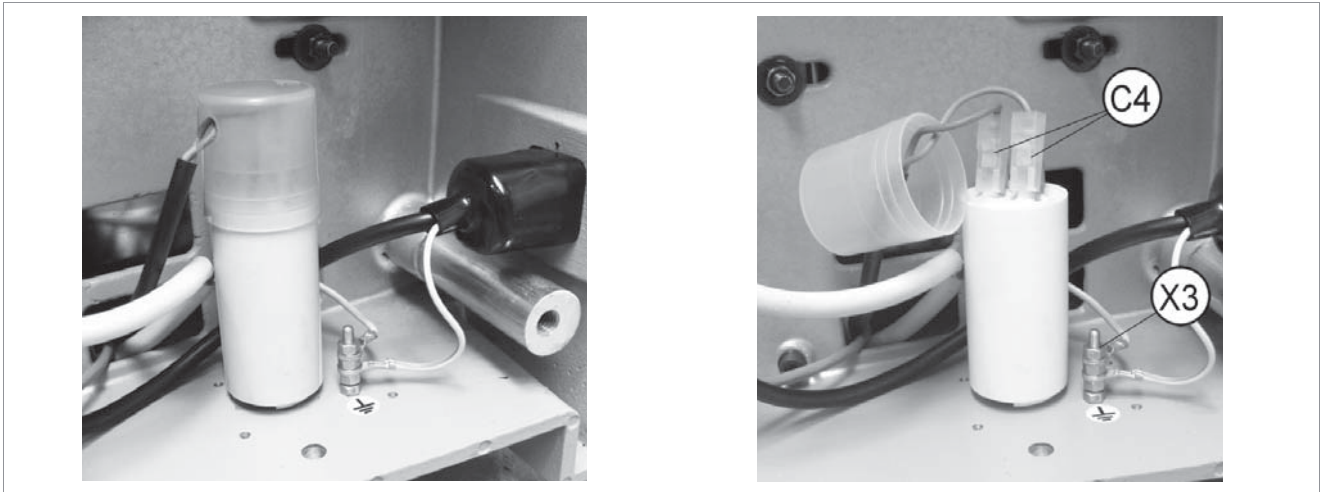


Fig.75

9.16 Replacing the Plexiglas shield



ATTENTION: turn off the machine and unplug.

- 1) Remove the top mat.
- 2) Loosen the 4 screws (S2), remove the 2 screws (S3) and remove the top cover (S1) (Fig.76).
- 3) Loosen the 3 screws (S4) and remove the Plexiglas shield (S) (Fig.77).
- 4) Place the new shield (S) in position and secure with the screws (S4).
- 5) Secure the top cover with the 4 screws (S2) and the 2 screws (S3); replace the mat.

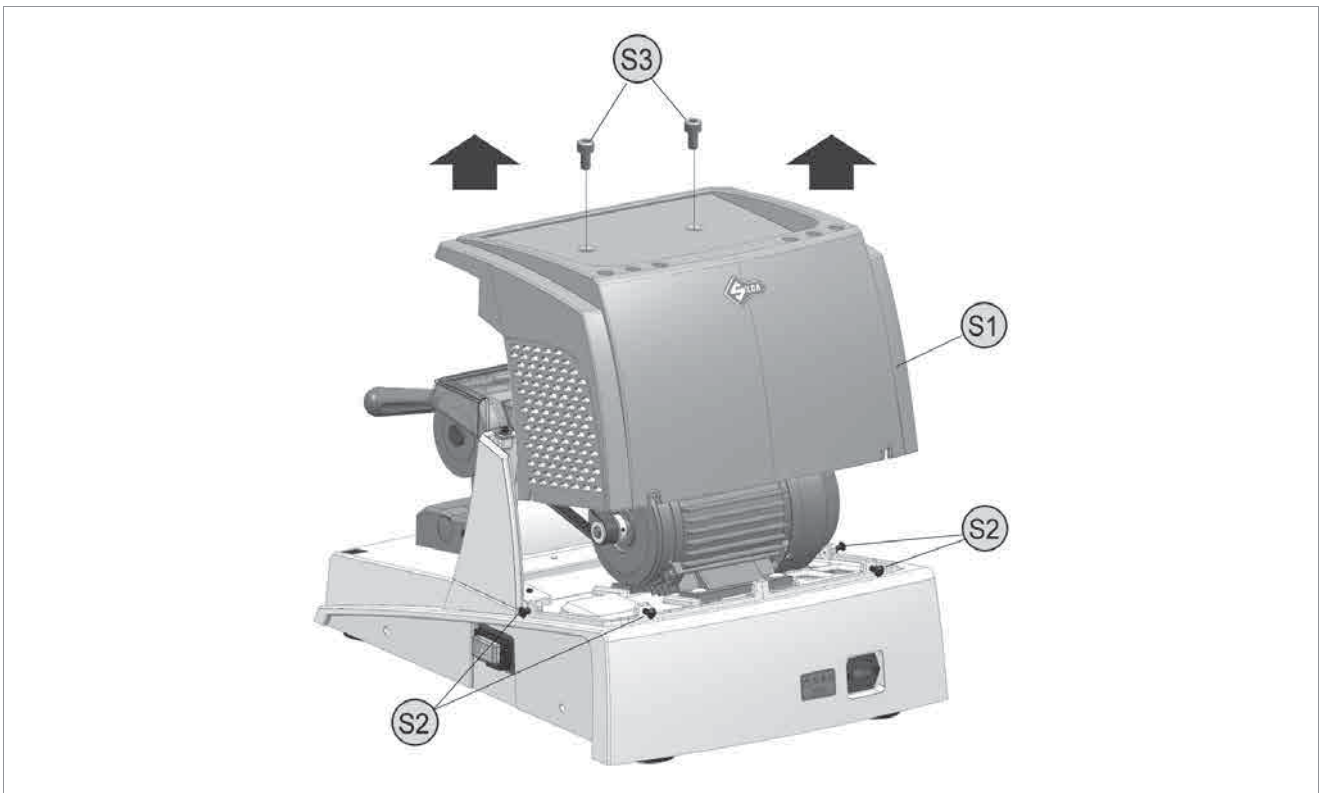


Fig.76

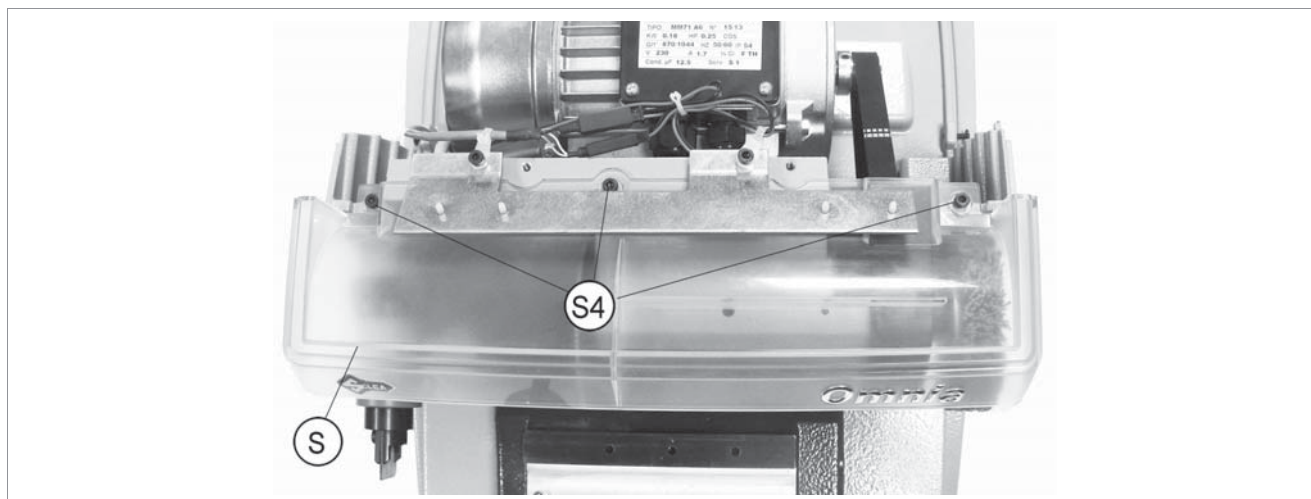


Fig.77

9.17 Replacing the lamp



ATTENTION: turn off the machine and unplug.

- 1) Remove the top mat.
- 2) Loosen the 4 screws (S2), remove the 2 screws (S3) and remove the top cover (S1) (Fig.76).
- 3) Loosen the 2 screws (T1) on the lamp support (Fig.78).
- 4) Detach the connector (T3) from the lamp to be replaced.
- 5) Loosen the lamp fixing screws (T4) and remove (Fig.79).
- 6) Place the new lamp in position and secure with the screws (T4).
- 7) Place the lamp support in position and secure with the screws (T1).
- 8) Secure the top cover with the 4 screws (S2) and the 2 screws (S3); replace the mat.

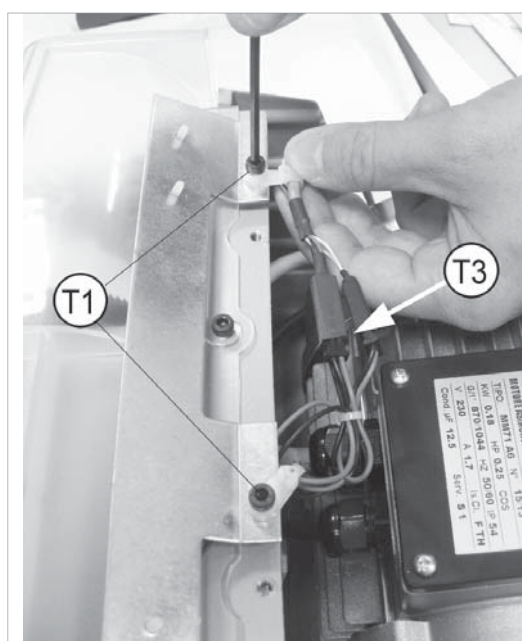


Fig.78

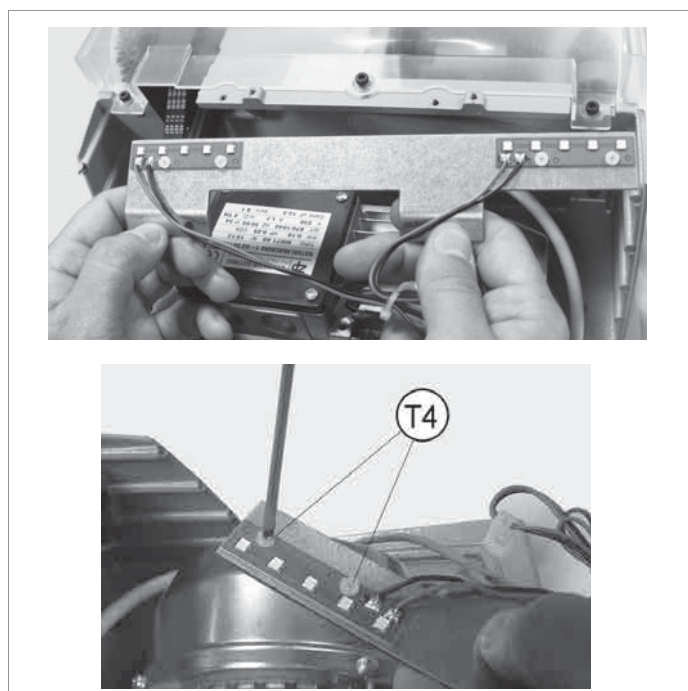


Fig.79

9.18 Replacing and/or tightening the belt



ATTENTION: turn off the machine and unplug.

- 1) Remove the top mat.
- 2) Loosen the 4 screws (S2), remove the 2 screws (S3) and remove the top cover (S1) (Fig.76).
- 3) Gain access to the bottom compartment (chap.9.6).
- **To TIGHTEN:**
- 4) Loosen the 4 nuts (H1) (Fig.80), push the motor towards the back of the machine and then tighten the 4 nuts (H1).
- **To REPLACE:**
- 5) Loosen the 4 nuts (H1) and move the motor forward towards the machine .
- 6) Loosen the 3 screws (S4) and remove the Plexiglas shield (Fig.77).
- 7) Remove the brush (chap.9.4).
- 8) Loosen the 3 screws (H6) and remove the belt protection (H7) (Fig.81).
- 9) Remove the belt (H8) and fit a new belt into the two pulleys (Fig.82).
- 10) Replace the belt protection (H7) and secure with the screws (H6).
- 11) Replace the brush.
- 12) Re-fit the Plexiglas shield.
- 13) Push the motor towards the back of the machine and tighten the 4 nuts (H1).
- 14) Place the bottom cover (X) in position, secure with the screws (X1) and screw in the 4 feet (V1) (Fig.62).
- 15) Place the machine upright on the worktop and insert the swarf tray (V).
- 16) Secure the top cover with the screws (S2) and (S3) (Fig.76); replace the mat.

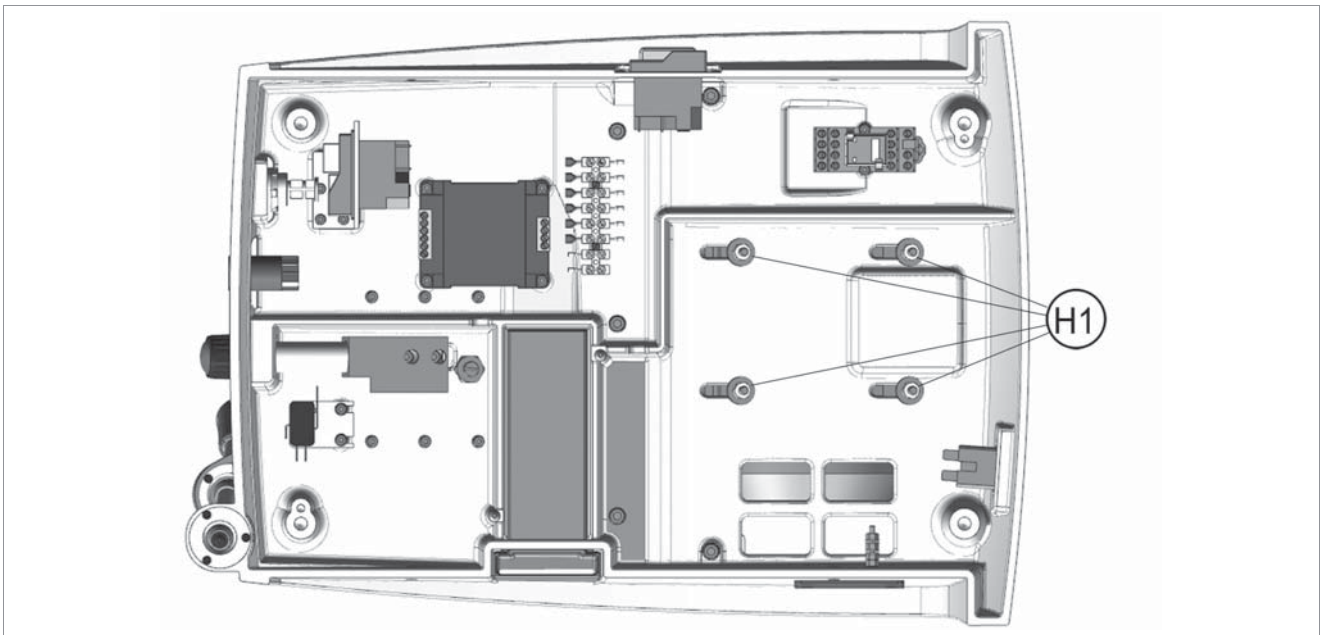


Fig.80

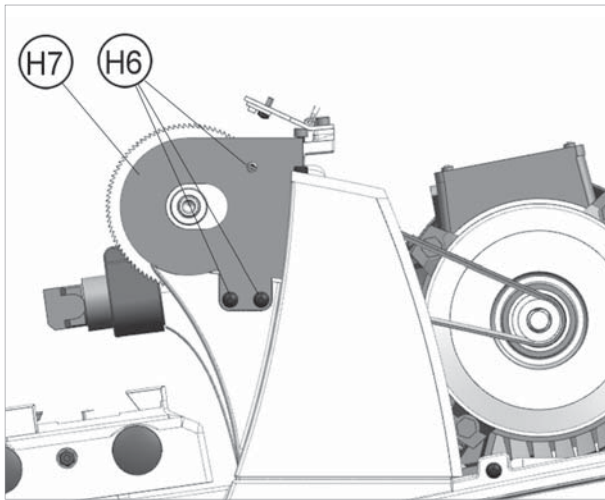


Fig.81

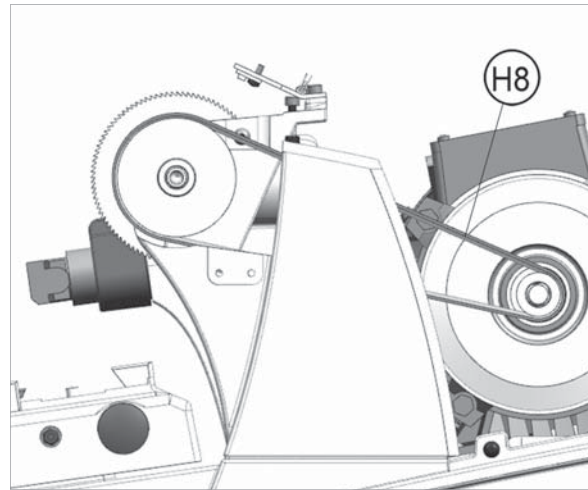


Fig.82

9.19 Replacing the motor



ATTENTION: turn off the machine and unplug.

- 1) Remove the top mat.
- 2) Loosen the 4 screws (S2), remove the 2 screws (S3) and remove the top cover (S1) (Fig.76).
- 3) Loosen but do not remove the 2 grub screws (H5) fixing the motor (Fig.83).
- 4) Gain access to the bottom compartment (chap.9.6).
- 5) Raise the condenser cap and remove the 2 connectors (C4) (Fig.84).
- 6) Loosen the nut (X3) and remove the earthing wire.
- 7) Remove the fasteners on the motor wiring.
- 8) Loosen the screws (1, 2, 7, 8) and disconnect the wiring from the relay (observe the right position carefully) (Fig.85).
- 9) Loosen and remove the 4 nuts (H1) fixing the motor (Fig.80). **TAKE CARE not to drop the motor.**
- 10) Move the motor towards the front of the machine and remove the belt from the motor pulley.
- 11) Slide out the motor (upwards) and remove the 4 screws (H2) (Fig.83).
- 12) Remove the pulley from the old motor and fit onto the new one, securing with the two grub screws (H5).
- 13) Place the new motor in position with the 4 screws (H2) and tighten the 4 nuts (H1) without locking them.
- 14) Take the motor wiring through the special hole and connect the 2 connectors (C4) to the condenser.
- 15) Insert the belt into the motor pulley, push the motor towards the back of the machine and lock the 4 nuts (H1).
- 16) Re-connect the connectors (1, 2, 7, 8) to the relay (observe the right position carefully).
- 17) Re-connect the earthing wire with the nut (X3).
- 18) Place the bottom cover (X) in position, secure with the screws (X1) and screw in the 4 feet (V1) (Fig.62).
- 19) Place the machine upright on the worktop and insert the swarf tray (V).
- 20) Secure the top cover with the screws (S2) and (S3) (Fig.76); replace the mat.

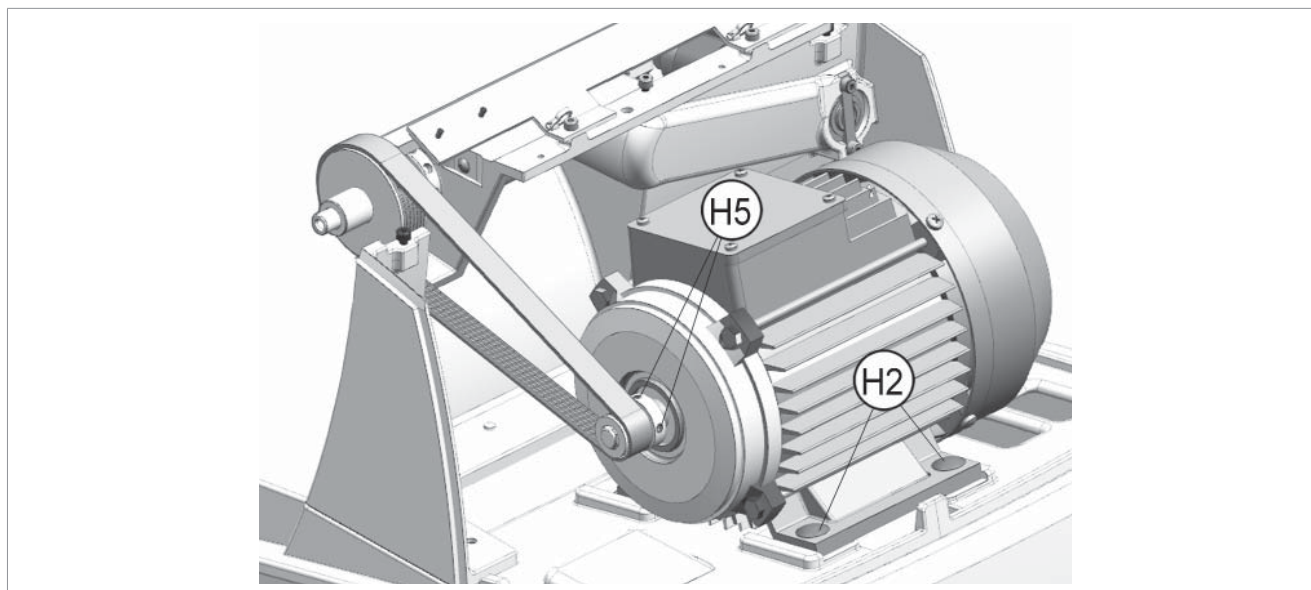


Fig.83

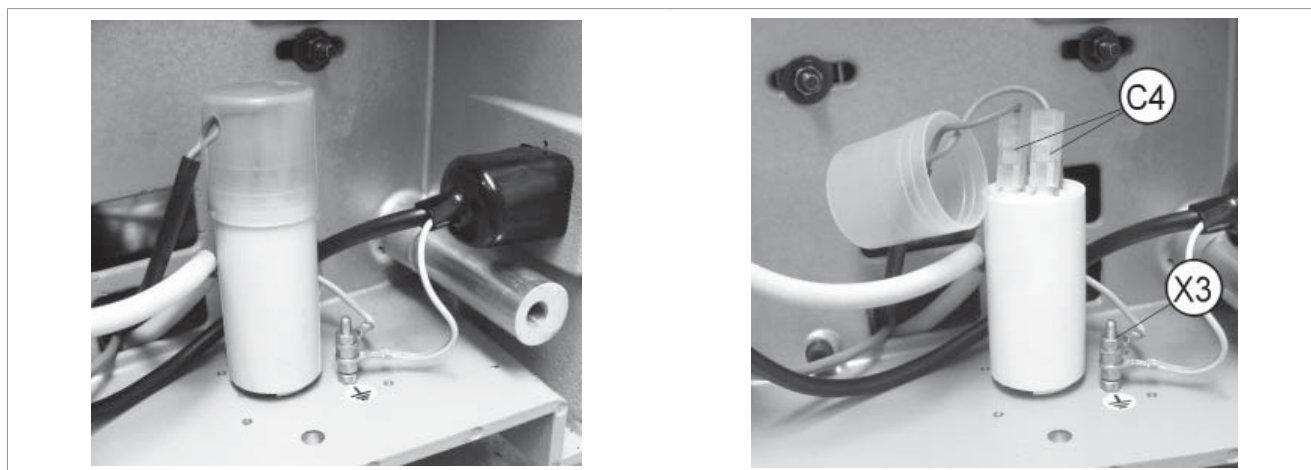


Fig.84

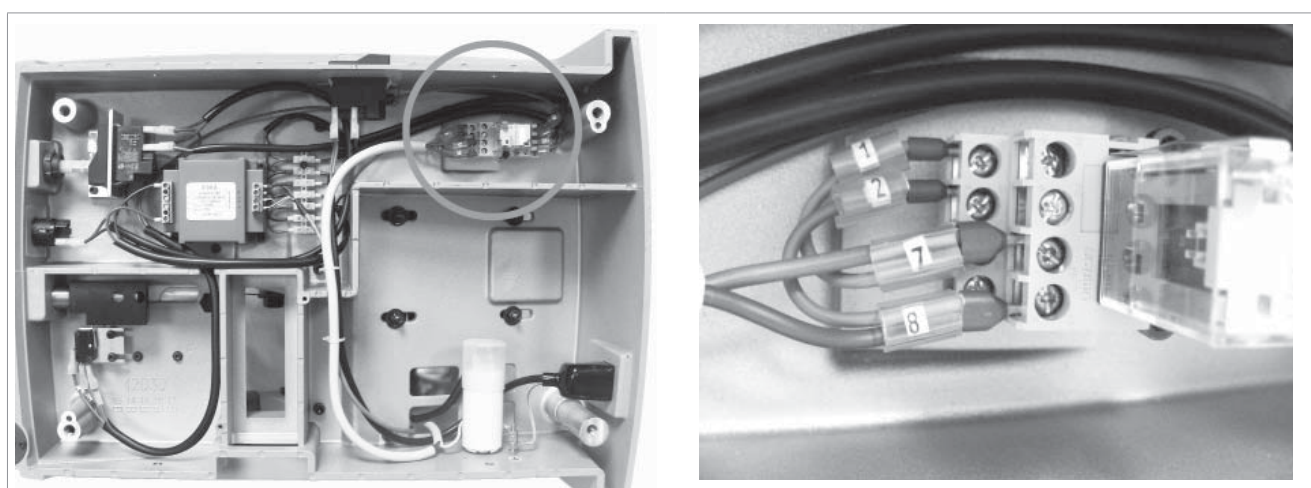


Fig.85

10 DISPOSING OF MACHINE

EU regulations establish special arrangements for the disposal of waste (**)

- **Waste deriving from cutting operations**

The waste deriving from key cutting is classified special waste, but is still classified as solid urban waste, as metal wool. Such waste must be disposed of in special collection centres according to the classification assigned to them by the current EEC law. The circumstances which transform metal residue from solid urban waste into contaminated or toxic noxious waste are listed in the appendices to the current European Union regulations regarding disposal of such waste.

- **Packing**

The packing in which the machine is transported is made of cardboard and wood therefore can be re-used if intact or if dismantled used as combustible materials.

Warning! Take great care when dismantling the packing as it contains nails, which could cause injuries. We recommend to bend the nails downwards into the wood with a hammer or to completely remove the nails disposing them in authorized metal recycling centres.

The packing is considered solid urban waste and must not be thrown into the environment but placed in special cardboard collection bins.



INFORMATION FOR USERS

*as per art. 10 of Directive 2002/96/CE of 27/01/2003
regarding waste from electric and electronic appliances (RAEE),*

- The symbol illustrated above, also found on the machine, indicates that it has been placed on the market and must be included in separate rubbish collection when the user wishes to dispose of it (including all components, sub-assemblies and consumables that are integrated in the product).
- For information about the collection system for such appliances please contact SILCA S.p.A. or another subject registered in the various National Rolls for other countries in the European Union. Household waste (or of similar origin) can be included in the separate collection system for urban waste.
- On purchasing a new appliance of equivalent type, the old one can be consigned to the dealer. The dealer will then contact whoever is responsible for collecting the appliance.
- Suitable separate collection of the unused appliance and its dispatch for treatment, recovery and environmentally compatible disposal, makes it possible to avoid potential negative effects on the environment and human health, and aids recycling and the recovery of the materials used.
- Unauthorised disposal of the product by users involves the application of the sanctions provided for in received Directives 91/156/CE and 91/689/CE.

(**) Waste is any substance or object deriving from human activity or natural cycles, disposed off or to be disposed off.

11 ASSISTANCE

Silca provides full assistance to purchasers of the key-cutting machine. To ensure complete safety for the operator, any job not specified in this manual should be carried out by the manufacturer or in the special Service Centres recommended by Silca.

On the back cover of this manual is a list of the manufacturer's addresses; listed below are the addresses of specialised Service Centres.

11.1 How to request service

The guarantee attached to the key-cutting machines ensures free repairs or replacements of faulty parts within 24 months of purchase. All other service calls must be arranged by the customer with Silca or with a Silca service centre.



VITTORIO VENETO 30/10/2013

CE DECLARATION OF MACHINE COMPLIANCE

SILCA S.p.A. - VIA PODGORA 20 (Z.I.)
31029 VITTORIO VENETO (TV) - (ITALY)
TEL. 0438 9136 - FAX. 0438 913800

Declares under its own responsibility that the **Key-cutting machine** model

OMNIA

complies with the requirements of the following European Directives:

European Union **DIRECTIVE 2006/42/CE** (Machines)
and with the EN 12100 – 1 :2010 Standards

European Union **DIRECTIVE 2004/108/CE** (Electromagnetic Compatibility)
and with the EN 55022 : 2010 / EN 55024 : 2010
EN 61000 – 3 – 2 : 2006 + A1 + A2 : 2009
EN 61000 – 3 – 3 : 2008 Standards

European Union **DIRECTIVE 2006/95/CE** (Low Voltage) | **13** |
and with the EN 60950 – 1 : 2006 + A11 : 2009 + A1 : 2010 + A12 : 2011
EN 62233 : 2008 Standards

Claudio Tomasella of the Silca S.p.A. Research & Development Division is authorized
to create a Technical File.

General Manager Basic Production Center

Stefano Setti

SILCA S.p.A.
Via Podgora, 20 (Z.I.)
31029 Vittorio Veneto (TV) Italy

A Member of the Kaba Group

Tel. +39 0438 9136 Fax +39 0438 913800 www.silca.it info@silca.it
P. IVA C.F. e Reg. Impr. IT03286730266 REA TV 258111
Cap. Soc. € 10.000.000 i.v. Export TV 038851

Società soggetta a direzione e coordinamento di Kaba Holding AG, con sede in Rümlang (Svizzera),
Hofwisenstrasse 24, ai sensi e per gli effetti degli articoli 2497 - 2497sexies del Codice Civile.





VITTORIO VENETO 30/10/2013

CE DECLARATION OF MACHINE COMPLIANCE

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31029 VITTORIO VENETO (TV) - (ITALY)
TEL. 0438 9136 - FAX. 0438 913800

Declares under its own responsibility that the **Key-cutting machine** model

OMNIA MAX

complies with the requirements of the following European Directives:

European Union **DIRECTIVE 2006/42/CE** (Machines)
and with the EN 12100 – 1 :2010 Standards

European Union **DIRECTIVE 2004/108/CE** (Electromagnetic Compatibility)
and with the EN 55022 : 2010 / EN 55024 : 2010
EN 61000 – 3 – 2 : 2006 + A1 + A2 : 2009
EN 61000 – 3 – 3 : 2008 Standards

European Union **DIRECTIVE 2006/95/CE** (Low Voltage) | **13** |
and with the EN 60950 – 1 : 2006 + A11 : 2009 + A1 : 2010 + A12 : 2011
EN 62233 : 2008 Standards

Claudio Tomasella of the Silca S.p.A. Research & Development Division is authorized
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**SERVICE CENTERS - CENTRI DI ASSISTENZA - KUNDENDIENSTZENTREN - CENTRES D'ASSISTANCE
CENTROS DE ASISTENCIA - CENTROS DE ASSISTÊNCIA - BIJSTANDSCENTRA**

COUNTRY	COMPANY	ADDRESS	CITY	AREA CODE	PHONE	FAX e-mail
Algeria	Sarl Maghreb Clés	Coopérative Ettadhamoune Local 21/A	Badjarah / Alger	16209	+213-21-264934	+213-21-264888 asmaghreb_cle@yahoo.fr
Argentina	Distribuidora Frappampino S.r.l.	La Rioja, 483	Cordoba	5000	+54-351-4216368	+54-351-4229003 frappampino@arnet.com.ar
Australia	Locksmiths' Supply Co. Pty Ltd.	140/158 Dryburgh St.	North Melbourne	VIC 3051	+61-39-3297222	+61-39-3281731 lsc@lsc.com.au
Austria	Erwe Gmbh	Feldgasse, 16	Feldkirchen	A-9560	+43-42762816	+43-42765054 firma@erwe.at
Belgium	Duitman Bvba	Zinkstraat 13	Halle	1500	+32-2-3831620	+32-2-3831622 info@duitman.be
Brazil	Kaba Do Brasil Ltda.	Rua Guilherme Asbahr Neto 510	São Paulo	04646- 001	+55-11-5545-4510	+55-11-5545-4515 kaba@kabadobrasil.com.br
Bulgaria	Intesa S.r.l.	1, Kukush	Sofia	01309	+359-2-8211425	+359-2-8211347 info@intesa.bg
Burkina Faso	Diallo Mamoudou	Av.Houari Boumedienne Porte N. 1651	01BP / 2957 Ouagadougou 01		+226-710448	+226-710002 dialloebauchedecles@yahoo.fr
China	Silca China	Xinhua Industrial Zone	Guanghai County, Taishan, Canton		+86-750-5325698	+86-750-5315655 alan@tswhayat.com
Colombia	Flexon Llaves S.A.	Av.Carrera 70 No.99 - 55 Entrada 1	Bogotá		+571-2538300	+571-5331842
Croatia	Ferrotechna d.o.o.	Japodska, 66c	Pula	52100	+385-52-503-529 +385-52-502-609	+385-52-503-529 ferrotechna@pu.t-com.hr
Cyprus	G.H. Yacoubian Ltd.	74/B, Regaena Street	Nicosia		+357-22-663525	+357-22-669009 ghycy@spidernet.com.cy
Czech Republic	H&B Plus. s.r.o.	Zatecká, 8	Plzen	30148	+420-377-225903	+420-377-225904 plzen@kllice-hb.cz
Denmark	Agenturcentret A.S	Brydehusvej 20	Ballerup	2750	+45-70111211	+45-70111221 agentur@agenturcentret.dk
Egypt	Gam Transworld	23 Omer Ibn El-Khatar Street	Heliopolis El Cairo		+20-2-22404705 +20-2-26441401	+20-2-22404705 gam@intouch.com
Finland	Hardware Group Finland Oy. (Hgf Ltd)	Luostarinportti 5	Kirkkonummi	02400	+358-9-2219490	+358-9-2962186 asiakaspalvelu@hgf.fi
France	SILCA S.A.S.	12, Rue de Rouen B.P.37	Z.I. Limay Porcheville	78440	+33-1-30983500	+33-1-30983501 info@silca.fr
Germany	SILCA GmbH	Siemensstrasse, 33	Velbert	42551	+49-2051-2710	+49-2051-271172 info@silca.de
Greece	Chrisikos K. Ioannhs	7 Pipsou St.	Thessalonik	TK 54627	+30-2310-510336	+30-2310-521651 info@chrisikos.gr
Greece	F. Sotiropoulos & Son O.E.	Patission Str., 110	Athens	11257	+30-210-8234009	+30-210-8238480 roulasot@otenet.gr
Greece	GEMKA-Karidis G. & Sons OE	Lykoirgoy St. 14-16	Athens	10552	+30-210-3243000	+30-210-3249571 g_karidis@yahoo.com
Greece	Fr.Ili Raptakis	Pili Iisou 10	Iraklion - Crete		+30-2810-285000	+30-2810-280165 raptakis_keys@her.forthnet.gr
Guinea	Soguintec S.A.	Calle Abilio Baloboa	Malabo - Provincia del Bioko Norte		+240-556618	
Holland	Duitman B.V.	Aquamarijnstraat 5	7554 NM - Hengelo		+31-74-2452520	+31-74-2452522 info@duitman.nl
Holland	H. Cillekens & Zn. B.V.	Metaalweg, 4	JB Roermond	6045	+31-475-325147	+31-475-325148 info@hcillekens.nl
Holland	Steenhauer B.V.	Oude Raadhuisstraat 1	Ap Leidschendam	2266	+31-70-3177262	+31-70-3177333 info@steenbauer.nl
Hong Kong	Professional Lock Centre Co. Ltd.	Unit A-D, 9/F. Gemstar Tower, 23 Man Lock Street	Hunghom, Kowloon, Hong Kong		+852-23302268	+852-23302082 plc@plc.com.hk
Hungary	Kaba Elzett	Megyeri út 51	Budapest	1044	+36-1-3501011	+36-1-3290692 info@elzett.hu
India	Minda Silca Engineering Ltd.	Plot No. 37, Toy City	Greater Noida	201308	+91-987-397630 +91-987-397631	+91-120-2351301 info@mindasilca.in
Iran	Klidavarshayan Co.	No.73 Stakhr. St - Emam Khomeini Ave.	Tehran		+98-216-6702757	+98-216-735649 klidavar@yahoo.com
Israel	A.M.C.I. Locksmith Supply Ltd.	22 Efal Street Kiryat Aryeh P.O.Box 3667	Petah Tikva	49130	+972-3-9230331	+972-3-9230332 amci@bezeqint.net
Italy	SILCA S.p.A.	Via Podgora, 20 (Z.I.)	Vittorio Veneto - TV	31029	+39-0438-9136	+39-0438-913800 silca@silca.it
Japan	Clover Co. Ltd	1-2-40 Haradanaka, Toyonaka-shi	Osaka	561- 0807	+81-6-6844-2111	+81-6-6844-1147 info@cloverkey.co.jp

COUNTRY	COMPANY	ADDRESS	CITY	AREA CODE	PHONE	FAX e-mail
Kenya	MPPS Ltd.	P.O. Box 31347	Nairobi		+254-20-6532913 +254-20-6533370	+254-20-6533369 mpps@swiftkenya.com
Kuwait	Hasawi & Sabano Co. For Gen.Trad.	P.O. Box 42105	Kuwait City	70652	+965-24832505	+965-2622778 sabanokuwait@sabano.com
Latvia	Solo F Ltd.	Salaspils 12	Riga	1057	+371-7278359	+371-7876901 solo.f@apollo.lv
Lebanon	Mouawad Books & Stationary Sarl.	Mouawad Str. Mouawad Center, 60094 Jal el Dib	Beyrouth		+961-4-711202	+961-4-11206 hicham.mouawad@mouawadmb.com
Macedonia	Panevski & Sinovi	Llidska , 11	Kumanovo	1300	+389-31-411545	+389-31-412411 panevski@mt.net.mk
Malta	Unimark Ltd.	32, Zerafa Str.	Hmr 03 Marsa		+356-21-231540	+356-241319 pl@waldonet.net.mt
Mexico	Corporacion Cerrajera Alba Sa De Cv	Circuito Gustavo BAZ, 16 Atizapan de Zaragoza	Messico D.F.	52966	+52-55-53667200	+52-55-53667291 info@kaba-mexico.com
Mozambique	Davel Importacao Comercio e Servicos	Rua Do Carmo NR.54 - 3° Solat	Coimbra	3000	+351 239833858	+351 914506747
New Zealand	Baber LSC Limited	Unit 5, 6 Argus Place Auckland	Glenfield	1310	+649-444-5117	+649-444-5119 info@babersc.co.nz
Nigeria	Chilex Security Products Ltd.	12, Olowu Street P.O. Box 5153	Ikeja - Lagos		+234-1-4965005	+234-1-4965005 chilexproducts@yahoo.co.uk
Norway	Prodib Ab	Montorgat 16	Eskilstuna	632 29	+46-16-168000	+46-16-145590 prodib@prodib.se
Poland	Dar-Mar	ul. Napoleona, 17	Kobylka	05-230	+48-22-7710118	+48-22-7710118 dar-mar@dar-mar.pl
Poland	Z.P.U.H. Expres Wojcieck Kowalczyk	32-447 Siepraw 795	Siepraw		+48-1227-46365	+48-1227-46365 expres@expres.pl
Portugal	Casa Das Chaves Da Falagueira Ltda	Estrada Da Falagueira 5B	Amadora	2701	+351-214936430	+351-214912403 ch.falagueira@mail.telepac.pt
Portugal	Luso Chav'	Av. Rodrigues de Freitas, 199-A	Porto	4000-303	+351-22-5104702	+351-22-5361248 geral@lusochav.pt
Romania	M&C Business S.r.l.	36, Badea Cartan Street 2nd District	Bucharest	20064	+40-213118602	+40-212120155 main_office@mcbusiness.ro
Russia	Strazh	16/2, pt. Komsomolskiy	Moscow	119021	+7 495 7083440	+7-495-7083292
Russia	O.O.O. Peter Key	Mihaylovsky Pereulok, 7b	Saint Petersburg	198095	+7-812-2520241	+7-812-2523885 peterkey@peterkey.ru
Saudi Arabia	Fahd Omar Bamashmous Est.	P.O. Box 20919	Jeddah	21465	+966-2-6422588	+966-2-6447238 bamashmous_est@hotmail.com
Serbia	Silkon D.O.O.	29, Novembra 70	Belgrade	11000	+381-11-2080200	+381-11-3290017 silkon@ptt.yu
Singapore	Silca Soxxi Pte. Ltd.	21 Toh Guan Rd. East #01-12 Toh Guan Centre	Singapore	608609	+65-6316-8100	+65-6316-4470 info@silca.sg
Slovakia	H&B Slovakia s.r.o.	Ovsistske Nam. 1	Bratislava	85104	+421-2-6252-0032 +421-2-6252-0033	+421-2-6252-0034 hb.slovakia@kluce-hb.sk
South Africa	Sanlic International (Pty) Ltd.	46, Hulbert Street New Centre	Johannesburg		+27-11-4939717	+27-11-6831312 acoetzee@voltex.co.za
Spain	Silca Key Systems S.A.	C/Santander 73/A	Barcelona	08020	+34-93-4981400	+34-93-2788004 silca@silca.es
Sweden	Prodib Ab	Montorgat 16	Eskilstuna	632 29	+46-16-168000	+46-16-145590 prodib@prodib.se
Switzerland	Robert Rieffel Ag	Widenholzstrasse 8	Wallisellen	8304	+41-44-8773333	+41-44-8773322 info@rieffel.ch
Syria	Muheiddin Arabi Katbi	P.O. Box 1322	Damascus		+963-11-2212407 +963-11-2224588	+963-11-2224588 +963-11-3737001
Taiwan	Global Tecspiro Ltd.	11F-2 N.42-2 Lian Sheng St.	Jhongho City Taipei		+886-2-22494028	+886-2-22425735 vincent@carkey.tw
Turkey	Kadiköy Anahtar San.Ve.Tic.Ltd.Sti.	Osmanaja Mah.Nüzhet Efendi Sk.No.56	Kadiköy - Istanbul		+90-216-4145254	+90-216-3475488 info@kadikoyanahtar.net
U.A.E.	Sabano Trading Co.Llc	P.O. Box 32075	Dubai		+971-4-2682400	+971-4-2622778 sabanodubai@sabano.com
Ukraine	Service-Centre Kopir	Segedskaya 12	Odessa	65009	+38-487-433196	+38-487-190777 v@key.odessa.ua
United Kingdom	SILCA Ltd.	6 Lloyds Court Manor Royal	Crawley	RH10 9QU	+44-1293-531134	+44-1293-531108 sales@silca ltd.co.uk
U.S.A.	Kaba Ilco Corp.	400 Jeffreys Road, P.O. Box 2627	Rocky Mount NC 27804		+1-252-446-3321	+1-252-446-4702 custsvc@irm.kaba.com
Venezuela	La Casa del Cerrajero C.A.	Av. Principal de Maripérez	Caracas		+58-212-793-0083	+58-212-781-8692 cerrajero@cantv.net
Yemen	Sabano Trading Co.Llc	P.O. Box 32075	Dubai U.A.E.		+971-4-2682400	+971-4-2622778 sabanodubai@sabano.com



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